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Pleasures of a Medical Life to the True Physician. Portion of a Valedictory Address, delivered at the New York Medical College, March 4th, 1856. By DAVID M. REESE, M.D., LL.D.

No man ever succeeds, or deserves to succeed in any profession, unless from an intelligent and exalted appreciation of its rightful claims upon his attention, he regards it worthy of the best efforts of his mind and the warmest affections of his heart. A physician should love his profession with all the ardor of a youthful swain for his affianced bride ; and to do this he must cultivate those habits of thought, and those associations in life, which will best satisfy him that Medicine as a science and an art, is worthy of his best affections.

Without claiming for Medicine either infallibility or perfection in its scholastic or systematic teachings ; and without denying that the practice of our art is attended by difficulties, discouragements, sacrifices, and privations, which are often onerous and even repulsive, we may nevertheless urge equal imperfections, and even greater trials as inseparable from all the other forms of human knowledge, and every other avocation.

At this crisis in your medical history, then it is especially

important that you should be warned against that class of persons whose delight it would seem to be to magnify the duties, responsibilities, dangers, and difficulties, of the practice of our profession, as though they would purposely deter young men of sensitive minds and tender susceptibilities from entering into our ranks.

Now without detracting from the justice of such a view as far as it is just, we yet protest against the hyperbolic excess with which certain writers dwell upon the dark side of the picture they attempt to sketch. Depend upon it there are bright lights as well as dark shadows in a true portrait, and we would fain call off your attention from the latter, while we glance at the former, by selecting as our theme the pleasures of a medical life to the true physician, which we shall see far outnumber all its pains; the latter being evanescent, and less than dust in the balance, when compared with the bright, joyous, and enduring pleasures which gild the horizon of the true physician, and render a medical life to such, one series of intellectual, social, and moral triumphs over himself and others, and should render him the happiest of mortals.

1. The medical life inspires and perpetuates in the true physician a conscious self-respect, which is one of the surest sources of happiness. He who enters upon the study and practice of our art, with a fixed purpose to excel in every department of his profession, will avail himself of all the accessible sources of knowledge now so abundant; and in his professional duties will see to it that he not only does to his patient "as well as he knows how," but that he has done as well by him as "any other man could do" in the present advanced state of the science and art. In such case, whatever may be the result, he will be able to "possess his soul in patience," and a consciousness of self-respect is to him an exceeding great reward. And even should he have no other recompense, as must ever be the case, preëminently with the young doctor, he will yet have the consolation to think with Boerhaave, that "the poor are our best patients, for God is their paymaster," and charge the bill to the Good Samaritan. The very worst patients we ever have, are those from whom we expect a fee, and yet fail in collecting it, after trying to do so;

for in such cases we lose all reward here and hereafter. Still we may retain our self-respect and be happy, if we have never oppressed the poor, nor withheld from them our tenderest sympathy and highest efforts of skill in the hour of need. No man can ever be a true physician, who does not recognize the appeals of the poor as a legitimate and imperative claim upon his time and talents, for the disregard of which, he can make no compromise with conscience, but by the forfeiture of his own self-respect, and a sense of this humiliation would be fatal to his happiness.

2. *Reputation*, next to self-respect, is a rich source of happiness, and is the legitimate inheritance of the true physician. Such an one will be a skilful as well as a successful physician, and success is not only the true but the sure foundation on which alone a reputation worthy the name may be secured and retained. Without success in the practice of our art, no adventitious popularity, no other elements of influence, such as wealthy and powerful friends, can protract the possession of this jewel—professional reputation. Hence the true physician prizes it more than life, and guards it by diligence, fidelity, and vigilance to his patients, courtesy and manly frankness in his intercourse with his professional brethren, deference and respect for his worthy seniors of the fraternity, whose counsel he desires and seeks when occasion requires, and especially he will see to it, that he never forfeits his dignity before the public by any unworthy or degrading association; nor descends to any act, which would dishonor his manhood or peril his character in the estimation of the community among whom he hopes to be regarded with respect. Such a man acquires an established character anywhere, which will withstand any amount of envy, jealousy, or malicious conspiracy among rivals, however numerous or powerful may be the array against him. No amount of influence by cliques or parties can move him from his steadfastness or disturb his equanimity, for he sits enthroned upon a rock of adamant, an established reputation. This is the secret which sustains men when called upon to endure the combined assaults of unscrupulous rivalry, the price of their success.

3. *Competence*, not wealth, is necessary to happiness, and so indispensable that without it, no pursuit, profession, or calling,

is worthy of cultivation. By competence, we mean a sufficiency of the good things of this life for ourselves and families, to place us in respectable and comfortable circumstances, beyond the necessity of denying ourselves reasonable indulgence in the luxuries of each revolving season, so far as consistent with health and temperance. Such a competence, every true physician may promise himself from the practice of his profession anywhere, in city or country; and this without any other contingency than those to which every other profession is equally exposed. And though on the part of young physicians, prudent economy will be necessary for a few years, yet the income from their practice will increase in a geometrical ratio, if they be true physicians—and this in the legitimate way, while retaining self-respect and scorning any equivocal or extra professional speculations.

4. *Friendships*, of the kindest and most endearing character are among the perennial pleasures of a medical man, and are cherished by many physicians among their chief sources of felicity. A casual introduction into the families of strangers by a professional call, has often resulted in an attachment by an entire family to him whose opportune sympathy was all he could offer in the hour of their bereavement, and which none but a medical man knows how to offer so well, for he has been schooled by his profession to this task. Many a young physician owes all his future fame and fortune to the friendships he has formed with his patients, by reason of his diligent and delicate attentions while they were languishing in sickness—friendships lasting as life. The multiplication of such friendships not only adds sources of mutual happiness, but serves indefinitely to extend the practice of the fortunate physician who is their object. To cultivate our social nature, while it is the dictate of our common humanity, is preëminently the duty and policy of medical men. An affected misanthropy, assumed dignity, and owl-like gravity, and churlish or sulky demeanor, will prove effectual barriers to the respect or confidence of the sick and the well. "He that would have friends, must show himself friendly," is a saying as well worthy of remembrance for its truth as for its antiquity.

But apart from the considerations urged, the cultivation of

our social nature should be habitual until it becomes natural. Taciturnity, is a positive disqualification for our profession, for patients will not be communicative to a medical man if he seldom speaks, and then only in monosyllables. Much will be concealed that the physician ought to know, unless elicited by a social chit-chat, which may be condescending in many cases, but need involve no loss of dignity, nor degenerate into unbecoming familiarity.

Another source of happiness in a medical life springs from the gratitude of our patients, and often of their relatives and friends. Such is oftentimes the depth of this gratitude, that it becomes inexpressible; it is seen in the eyes overflowing with tears, it quivers on the lip in vain attempts to give it utterance, and even in the dying, when all our efforts have been unavailing, the last throb of the failing heart, the last uplifting of the glazed eye, the last pressure of the feeble hand, and the last word whispered with the expiring breath, all, all speak in unearthly language of overflowing gratitude for professional fidelity, sympathy, and tenderness, and the last prayer is often for blessing to the kind and faithful physician. Such a scene once witnessed, will extract the sting which the ingratitude of others may have often inflicted, and repay a thousand fold, for the heartless failure to appreciate and reward our services by a thousand ingrates. Such experience is that of every true physician; and if you are such it will be yours; and you will feel that

"The chamber where the good man meets his fate,
Is privileged beyond the common walks of virtuous life,
Quite on the verge of Heaven."

To be the instrument, as every true physician often is, by the exercise of his art and the interposition of his skill, in rescuing from sudden danger and impending death, a father, mother, husband or wife, son or daughter, and restoring peace and joy to a whole household at the trying and critical moment when hope had well nigh fled, is often the privilege of the true physician.

So abounding and even excessive is the gratitude often felt and exhibited by whole families, that the physician himself is constrained to check its expression, by calling upon all to "give

thanks to God, who has revealed such things to men," lest the creature should be worshipped instead of the Creator. Such will be your experience if you become true physicians; you, too, will witness the triumphs of medicine over disease in your own hands, and the parents whose only child you have restored to their arms, even after hope had fled and despair had well nigh prostrated the fond father and almost burst the heart of the tender mother, will overwhelm you with tokens of their gratitude; and that child will be taught to lisp your name, as the chosen instrument sent by Providence just in time to conquer disease and ward off the shafts of death.

Tell me not then that a medical life is *all* care, and pain, and toil, and hardship, and privation; for there are bright lights and joyous pleasures, ever and anon, in the experience of the true physician, with which a stranger intermeddleth not.

But I charge you, my junior brethren, that these exquisite pleasures of a medical life are reserved for the *TRUE* physician only.

Case of Wound of the Internal Jugular Vein successfully treated by ligature. By ALEXANDER B. MOTT, M.D.

Amongst the most painful cases that fall under the notice of the medical practitioner, are those in which he is called to render his assistance when life is seemingly no more. In most instances they are beyond the reach of aid. The wretched subjects of them—the victims of their passions, their intemperance, or their misfortunes—have generally sought and found relief in another world than this, and all that the medical man usually can do, is to cast his eye helplessly on the remains of fallen and inanimate humanity. Deeming his presence useless, he generally hurries from the scene. There are instances, however, in which science and perseverance can render service when all is apparently hopeless; and of such a nature is the case whose leading features I am about to record:—

About half-past eight o'clock of an evening in the early part of January, 1855, I was sent for in great haste, to see a man who had attempted to commit suicide by cutting his throat with

a razor. I immediately followed the messenger and arrived at the place about fifteen minutes after the act had been perpetrated.

The patient, William H——d, (for obvious reasons I withhold the name), a young man of twenty-three, residing in S—— Street, had made the attempt while laboring under an attack of delirium tremens, induced by that over-indulgence in unwholesome liquids, but too common in our clime; and when I first saw him, he was lying with his face towards the floor, his father leaning over him and holding some cloths saturated with blood around his neck. Beneath him was a pool of blood, the carpet being positively soaked; and on entering the apartment I was greeted with the father's exclamation, that "It was too late, his son was dead," &c. Anxious, however, to ascertain the fact and examine the wound, I seized the neck, and passing my fingers into the incision, placed them so as to fill up the gash, which was fully as wide as three of them; requesting at the same time a police officer, who was present, to turn him on his back, so that I might be more at liberty to follow the course which I designed to pursue.

This being done, I had an opportunity of making an ampler inspection, and ascertained that the wounds were two in number: comprising one large incision on the right side of the neck, extending from the left side of the trachea to the ear, and another smaller about an inch in length, dividing the integuments on the left. The former alone was important and was very serious,—laying bare the trachea, the common carotid artery, and severing the internal jugular vein, the sterno cleido mastoid muscle and external jugular vein. The artery was under my fingers, but no pulsation was perceptible, and I became apprehensive that the old man's words were only too true. Feeling, however, a certain degree of heat in the body, and having great confidence in artificial respiration, I resolved to try what could be accomplished by its agency. Placing my mouth against the patient's lips, and pressing back the larynx so as to close the œsophagus, I breathed into his lungs, and with the aid of those around me, successively evacuated them by pressure on the chest and sides. After keeping this course up for fifteen-minutes, I cautiously examined the wound by gradu-

ally raising one finger after another to ascertain what vessel was out; and on removing the forefinger, observed the deep jugular vein, an inch of which was perfectly bare, fill with blood. This affording a ray of hope, I, without removing my fingers, continued the artificial respiration, and on the elapse of other ten minutes, had the satisfaction of finding a slight pulsation in the carotid artery. Encouraged still more by this, I persevered with my inflations, and at the end of the three-quarters of an hour, was yet more gratified by feeling a feeble pulsation at the wrist. Natural breathing was at the same time restored, although no consciousness was yet visible on the part of the patient; but he had evidently so much revived that I resolved on now carrying out the second part of the treatment which I had determined to adopt.

Having still retained my fingers in the wound, I now carefully withdrew the upper one, but found no blood flow. I next pursued a similar course with the lower one, and it was attended with the same result. From this I inferred that the incision must be under the middle finger, and raising it with much precaution, I discovered not only the seat of the wound, but also that a considerable piece had been actually cut out of the vein.

With my left hand, which was the one disengaged, I then took from my pocket-case an eyed probe, bending it in the shape of a hook, and a double ligature being passed through it, inserted it under the wounded vein. By keeping one finger on the upper and another on the lower portion of the vessel, the opening could be easily seen, and I consequently, without any unusual difficulty, succeeded in placing one ligature above, followed by a second below it. Several professional gentlemen, in the meantime, had entered the room, and judging from his cadaverous appearance, expressed an opinion that the patient could not survive. It was useless, they said, to attempt anything whatever; and after witnessing the incision in the vein, which I took an opportunity of showing them when the vessel was secured, they retired, evidently wishing to avoid the inconveniences of a coroner's inquest, which is always attended with an unpleasant loss of time. Left again to my own resources, I next endeavored to make the patient swallow some stimulants,

which he did with difficulty, vomiting shortly afterwards, but not until he had taken a considerable quantity. The effect of this, however, did not prove so serious as I had anticipated, though he remained several hours in a very low condition. He was still unable to articulate, but by means of signs he contrived to express a desire for water instead of brandy, and again relapsed into a state of semi-stupor.

It was now about half-past two in the morning. During the whole time I had never quitted him, but was now rewarded for my anxious labors and suspense, by at last hearing the patient speak. He called for water and addressed several of his friends by name. The immediate danger being thus evidently passed, I dressed the wounds, drew them together with stitches and adhesive straps, placed him in bed with warm applications to his feet and body, ordered strong beef tea and brandy to be administered freely, and finally at half-past three in the morning, left him sleeping quietly.

On visiting him the first day after the operation, I found him delirious, with a small pulse of 110. I consequently prescribed him morphine.

On the second day, the pulse had fallen to 105, but the delirium still continuing, I repeated the anodyne in larger doses.

On the third day, he was still delirious, though with a pulse less frequent and fuller. Morphine in large doses was still continued, and on the fourth day, I dressed the wounds. The delirium now was sensibly less, but on the fifth, it still was observable, though the pulse had progressively diminished in frequency.

On the sixth, too, when I again dressed the wounds, he was yet slightly delirious, and exceedingly restless. With regard to the wounds, I may add, that originally they appeared to have united by the first intention, but on the second dressing, I found they had opened in consequence of his great restlessness and constant tossing of the head from side to side. I subsequently dressed them with lint, and they healed kindly by granulation; the ligatures detaching themselves on the twelfth and thirteenth days; from that date his recovery was rapid. Eventually he was entirely restored to health, though he remained for sometime so timid, that it was with the greatest difficulty I

could persuade him to leave the room. This, however, was obviously to be attributed to the consequences—fear of ridicule, exposure, &c.—that might possibly arise from his rash and unfortunate attempt.

The preservation of this man's life, I may remark, was exclusively due to perseverance in producing artificial respiration. An impulse was thus communicated to the small portion of blood still remaining in his body, but incapable of itself, to sustain life for any lengthened period ; and nature, which is always ready to assist our efforts, rapidly reproduced what had been lost.

I have had several opportunities, I may further mention, of testing the efficacy of artificial breathing, and am satisfied that in many cases life might have been restored by its agency, while death has often ensued in consequence of the individual being allowed to remain unaided after a superficial and unsatisfactory examination.

In two instances of suspended animation, of which I am cognizant, I have observed similar results, after the pulse had ceased to beat and apparent dissolution followed from the action of chloroform.

The first was that of a boy, about six years of age, on whom I was performing the lateral operation for stone. The administration of the anæsthetic had been entrusted to a gentleman, who was accustomed to apply it ; but he had evidently given it in a dose unduly large, for, while in the act of introducing the forceps, I looked at the boy and noticed that the action of the thorax had ceased. I consequently felt for the pulse, but could find none. Discerning the danger, I immediately, without removing the instrument from the bladder, applied my lips to his mouth, inflated the lungs, and by pressing upon the chest, expelled the air. This I repeated several times, until becoming fatigued through my awkward position, I requested an attendant private pupil, to breath into the mouth while I retained charge of the chest ; several gentlemen meantime had examined the pulse, and one of them—a veteran in the profession, remarkable for his caution—had even put on his coat with the intention of quitting, remarking “there was no chance,” evidently thinking that it would be better for him to avoid the

pleasure of an encounter with the coroner. He had scarcely, however, got further than the door, when I recalled him by stating that I was about to extract the stone, and this being an inducement which he could not resist, he returned to witness the completion of the case. The child had in the interval recovered, in consequence of the artificial respiration to which I have alluded, and the operation was finished without further difficulty, and the patient ultimately recovered.

The second case to which I refer, is that of a lady, who was operated upon for hemorrhoids, by an eminent surgeon of this city. In this instance, I administered chloroform, and requested a professional gentleman present, to keep up the effects, which was done very judiciously, while I assisted in the operation. This was performed with the utmost care, and on removal of the handkerchief the pulse was good and breathing perfect. Chancing shortly afterwards to take hold of the wrist, I discovered that pulsation there had suddenly ceased, and respiration at the same time became suspended. The operator's attention was called to the subject, and he immediately remarked that the patient was dead. My previous case had taught me an impressive lesson, and I accordingly had recourse to similar means. The result was the same,—equally successful; the only difference between the two cases being, that in the former the disagreeable consequences had ensued from the over anxiety of the administering party to witness the operation, causing him for the moment, to overlook the condition of the patient, while in the second, they resulted solely from the depressing power of the anæsthetic upon a frame greatly debilitated by frequent losses of blood.

To revert for a moment to the original subject. Prof. John George Morgan, of Geneva, in the *American Journal of Medical Sciences*, for 1836, (vol. xviii, page 330.) records a somewhat similar case. The patient in this instance was an unhappy convict who attempted to escape from incarceration for life by suicide, and, after first endeavoring to hang himself, had afterwards cut his throat. With a professional callousness, which I hope is rare, the Doctor tells us that though the man was cut down with "face pale, pulse feeble and irregular," he considered the first attempt a *sham*, and thus took no steps for avert-

ing the more desperate and nearly successful second, in which the unfortunate prisoner divided "three-fifths of the deep jugular vein." Dr. Morgan tied it; but speaks of troublesome effects as apt to flow from such operations as the application of ligatures to veins. I can only say that I have been obliged to cut out a portion of the deep jugular vein in the course of removing tumors from the neck, and have tied it without any inconvenient results whatever; the ligatures coming away sooner than in the case of any artery.

So far as I am aware, there is only one other analogous case recorded in surgery. Dr. Giraud, in Sedillot's *Journal Generale de Medicine*, &c., states the case of a French surgeon, who in 1814, at the Military Hospital of Toulouse, tied the trunks of the common carotid artery and internal jugular vein, both of which had been wounded by a musket shot. Up to the sixth day after the application of the ligatures no unfavorable symptom had occurred; but the final result of the operation is not mentioned either in the work itself or in *Cooper's Surgical Dictionary*, which quotes it.

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On the Influence of Sea Life and Warm Countries on the Progress of Pulmonary Phthisis. By JULES ROCHARD, Second Surgeon-in-Chief of the Navy at the port of Brest.

(Concluded from page 44.)

I. *Western Coast of Africa.* Senegal is the warmest country in the world, and that which, at the same time, has the most variable temperature. The year is there divided into two seasons; the one warm and dry, the other wet and less burning. The East wind prevails during the former, and brings with it the burning dryness of the sand of the desert. The West wind follows it, and bears with it the freshness and dampness of the sea which it has crossed. All insalubrious influences are there united. Burning heat changes such that in less than five minutes the thermometer falls eight or ten degrees when the sea wind follows the land breeze; alternations of dryness

and moisture, torrents of rain, tornadoes,* and above all, immense marshes, which with their miasms, fill the air with the germs of the most destructive fevers. Intermittent fever of all types, hepatitis, dysenteries, nervous colics, these decimate Europeans. It kills, each year, one soldier in seven; in Sierra Leone 483 out of 1,000, or nearly 1 in 2; at Gambia, mortality is yet greater. In the detached posts, at Podhor, at Dagona, at Boquel, at Acinie, at Grand Bossam, it is greater than at St. Louis. The Gaboon, although situated under the equator, appears, on the contrary, to be more healthy. This is, at least, what was observed in the vicinity of the naval hospital of that station. Is it surprising that phthisis should be rare in such a country. It is there smothered by the frightful mortality of endemic diseases. These too rapidly destroy Europeans, says Thévenot (*Traité des Maladies des Européens, dans les pays Chaud spécialement au Senegal*), to permit us to appreciate the progress of an affection so frequently slow, like phthisis. It must not be believed that it is as rare as would be thought from the table which is given, and which is always brought forward when Senegal is spoken of. Out of 952 patients, it does not mention one with phthisis. From a table prepared by myself, it is shown that, at the naval station, there were, in 1846 and 1847, among 3,144 men, 148 deaths, of which 6 were from phthisis, or 1 in 24.66; and 126 were sent home, of which 14 were on account of phthisis, or 1 in 9. Another table also shows that, of 134 sick men belonging to the garrison, and sent back to France at different times, 8 were for the same reason. This proves that, without being frequent, phthisis still has some victims among Europeans whom the endemic affections spare. At Sierra Leone, the English count 1 phthisical in every 485 effective men. Bronchitis is there very common, as has been proved by MM. Raoul and Foussagrives,

* The tornadoes may give an idea of the changes of temperature in equatorial regions. They are preceded by a profound calm, during which the heat rises to such a degree that the air seems to be irrespirable. Great clouds slowly rise from all points of the horizon, and color with a sombre tint the threatening stillness of the sea. Then, when the storm blows, when the winds break free in their circular movement, the sensation of cold becomes so acute that the thickest clothing scarcely protects Europeans, and the blacks quake with cold in their almost complete nudity, when they have not taken the precaution to light a fire, as is their custom before a tempest.

surgeon majors to the station, at different periods ; and it is remarkable that it is most common in the warmest months of the year. Pneumonia and pleurisy are rare among the whites, but very common among the natives. If, now, we desire to know what is to be attributed to the score of emigration, I will quote one of the men who has known Senegal best, and whose opinion has had the most weight with us. "Far from modifying it beneficially, we have seen, in this country, many subjects predisposed to pulmonary tubercles, in whom phthisis has been kindled and proceeded with a sad rapidity. We have lost two from it, and sent seven back to France ; so that I do not believe it is any benefit to men of such a constitution to live in these climates, at least if they have any symptoms of phthisis. Tubercles are very common in the native population, and phthisis causes a large portion of the deaths." (Raoul's Report to the Minister.) Foussagrives has given the same opinion. "Always observing that phthisis is produced in both cases without special influences of the climate; I cannot deny to these a very decided action in the evolution of tubercles. Phthisis originates less frequently on the West coast of Africa, but it develops itself much more rapidly than it does in France." But this is quite enough concerning a country to which I do not believe a phthisical person ever dreamed of going in search of health.

II. *The India Seas.—Isle of Bourbon and Isle of France.*—Lying within the limits of the torrid zone, these islands offer to the European the most beautiful climate in which he can dwell. Intermittent fevers are very rare there ; hepatitis is seen but little ; dysentery is somewhat common, but not severe. In return, the affections of the respiratory passages are very frequent there. The strong breezes which prevail during all the pleasant season, the freshness of the nights, the abrupt changes of temperature, frequently cause bronchitis, pleurisy, and pneumonia. Pulmonary tuberculization makes rapid progress there. I was unwilling to trust to my recollection, and applied for information to M. Lepetit, second physician-in-chief, who has just left this colony. These are the conclusions upon this subject which he has just sent to me :

"Phthisis is less frequent at the Isle of Bourbon than in

Europe, but it progresses more rapidly there. After the tuberculosis has commenced, it then runs on with frightful rapidity, and destroys the patients much more promptly than in France. This opinion is generally admitted in the island, and physicians advise a return to Europe as soon as the signs of softening tubercles appear. Diseases of the air passages are less common in the hot season. The windy season, by the refrigeration which is produced by them, frequently produces bronchitis. The city of St. Paul, by its position, which is sheltered from the East winds, has a more equal temperature, which is constantly higher by *one* or *two* degrees than that of Saint Denis. Residence in it is more favorable to persons predisposed to pulmonary affections. The physicians of the colony send their patients there. The eastern or windy part, exposed to the breeze generally, is, on the contrary, most unfavorable to them. In short, what is most striking in this disease at the Isle of Bourbon, is its extreme rapidity. I observed in my service two remarkable cases of it, in soldiers of the station, sent to the hospital for simple bronchitis. In six weeks, or two months, they passed from fair *embonpoint* to the most complete emaciation and death. The autopsy showed us a well of pus in both lungs."

The ships which return from Bourbon always bring back a large number of phthisical patients. Witness the corvette *La Nièvre*, which, on its return to France, in 1837, was obliged to land its sick men at the Cape, to give some days rest to the phthisical which she had on board, three of whom died during the passage from the Cape to Brest.

Among the victims to the climate I count one of my relatives, a young lieutenant of the marine service, all of whose family had most excellent constitutions. He started in 1851 for Bourbon, in the most perfect health, and died on the eighteenth of October of the following year, at the hospital in St. Paul, killed in a few months by a phthisis of which he had, before his departure, given no symptom.

At the Isle of France, the same meteorological conditions produce the same results. Phthisis is very common there, and goes on very rapidly, according to MM. Lesson and Follet. We have seen that, in the English troops, it attacks one soldier

in every 140, according to Mac Tulloch. Its ravages would be still more marked, if we quote Clark, since of 1,000 men it destroys 3.2, while the whole mortality does not exceed 28.2 in 1000. Phthisis would be, to the whole mortality, as 1 to 8.81, and it would destroy 1 soldier in 312.

Notwithstanding the salubrity of these two islands, and the attractions which a residence in them offers, they should be forbidden to phthisical persons.

India.—Pulmonary tuberculosis is very common at Bengal. It has a marked share in the frightful mortality of Europeans—a mortality such that, of the English and Portuguese families, according to Doctor Twinning, not a single individual of the third generation is living. Phthisis, says this physician, is more certainly and more rapidly fatal in Bengal, than in England. Every European who arrives in this country with the germs of phthisis and its precursory symptoms, dies of the disease much more quickly than in Europe. I remember, in fact, to have seen, in 1842, at the hospital of the Medical College, at Calcutta, a large number of consumptives. The disease is not rare on the coast of Malabar, or the coast of Coromandel.

Mr. Collas, chief surgeon of the navy, having for many years the direction of the medical service of this colony, ranked it immediately after cholera on the list of endemic diseases. It is, he says, a terrible infliction to the Indians, and especially to the mixed races. It is very common, not only at Pondicherry, where there is no paludal endemic, but in the countries of India, where this paludal endemic prevails and is characterized by splenic engorgements. Not only is phthisis common in India, but persons affected by it who arrive there, find their disease rapidly aggravated. No locality can afford any shelter from this terrible disease,—not even Pulo-Pinang, in the Straits of Malacca, which is, however, considered a sanitarium for consumptives.*

Mr. Collas quotes, in support of his opinion, that of Doctors James Renold, Martin, and Allan West. The latter, especially, expresses himself in so positive terms, that I cannot help repeating this quotation: "I have seen so many misfortunes come

* Cases observed at Pondicherry.—*Colonial Review*, May, 1852.

upon families, and such losses to the public service arise from false ideas, which prevail concerning the benefit which scrofulous persons and consumptives may receive from a residence in tropical countries, that I think myself bound to say that, in my opinion, Bengal is as bad a place as can be for these diseases. I have had physicians, clergymen, and officers, express to me their astonishment at the fatal turn which has been taken by those diseases, that they had expected to see cured here. I have seen young and beautiful ladies carried off with frightful rapidity. I have seen young soldiers who, if care was not taken to send them back to die in their own country, would become entirely unfit for service. I have visited Penang and Singapore, and I cannot admit, after my observations in those places, that a residence in islands can at all retard the progress of phthisis."^{*}

At Madras, according to Dr. J. Annesley, affections of the respiratory organs are rarely observed. Of 9,553 Europeans, 14 only died of phthisis, which gives the very small proportion of 1 in 682. In 1841, of 17,420 admissions, the proportion of deaths from phthisis did not exceed 14, according to Mr. Boudin.

At Ceylon, on the contrary, phthisis causes the death of 6 out of every 1000 Europeans; a large proportion, but less than that of the general mortality, which rises to 142 in 1000, more than 14 in 100.

In conclusion, the climate of the Indian Seas is unfavorable to tuberculous persons. We have spoken of a ship, *l'Isère*, which, out of 154 men, had lost 5 from phthisis at the end of one year's cruising in those latitudes. On board the frigate *la Jeanne d'Arc*, which is now there, Mr. Mairet has seen three cases of the disease. Its progress has been so rapid that two of its subjects have been sent back to France in the most alarming condition, and the third appears unable to bear the voyage, and has been left at Pondicherry. On the same station, on board the *Caiman*, an apprentice attacked in the same way, had such alarming symptoms that he was sent back to Europe by the Isthmus of Suez, for fear that he would die

* *Pathologica Indica*, by Allan West, p. 128.

during the passage if he was obliged to follow the ordinary route.

III. *South America.—Peru.*—I have but little to say of the vast countries situated on the western coast, on the two slopes of the Cordilleras. Bolivia, Peru, and Columbia are, except some points on the shore, Guayaquil for example, healthy countries of elevated but uniform temperature. The South and South-southwest winds almost constantly prevail on the coast of Chili and Peru. Rain is almost unknown in this country, but it is replaced by thick fogs, which fill the air during the whole year, and produce a warm and damp climate eminently adapted to the development of vegetation. The thermometer rarely goes below 15 degrees in Winter, and never rises higher than 25 degrees in Summer. The year is there divided into four seasons. The Summer, from January to March, offers for observation severe diarrhoeas, dysenteries, somewhat severe hepatitis, eruptive fevers, some cases of sporadic cholera, and affections of the chest, which are frequently epidemic, and which sometimes make great ravages in the mountains. The Autumn, from April to the end of June, produces intermittent fevers, which assume most frequently the tertian type, and yield readily to the sulphate of quinine. The nights at this season are cold and damp, and yet chest-diseases become more rare. Winter extends from July to October. The mean temperature is then from 14 to 15 degrees. Pleurisies, pneumonias, and acute articular rheumatisms are then very frequent. The corvette *la Sarcelle*, in the course of the cruise which I have cited, was, at this time of the year, invaded in the roadstead of Callao by an epidemic pneumonia, which, in the month of October alone, attacked 14 men out of 90 which made up the crew, and 2 died of it. As to phthisis, I can cite but a single fact, the case of the man Prigent, who died in two months of an acute phthisis, in the roadstead at Callao. In the impossibility in which I find myself, of answering the question directly, I have thought it better to take a round about way, and to seek in the climate and the diseases which prevail there for the necessary elements to establish a presumption. I believe that in cases of doubt one would be little tempted to direct consumptives to

this country of fogs, in the pathology of which diseases of the chest play so important a part.

Brazil.—Brazil, which forms with the countries of which we have just spoken, the portion of South America within the torrid zone, does not leave us in the same uncertainty. It is assuredly one of the most beautiful countries in the world. I do not know, for my part, anything more admirable than the roadstead and environs of Rio Janeiro. Well, notwithstanding its beautiful sky and luxuriant vegetation, notwithstanding the uniformity of its temperature, which never rises higher than 25 degrees R., and never goes below 10 degrees R., Brazil is one of the points on the globe where phthisis rages with the most intensity. "Pulmonary phthisis," says Doctor Sigaud,* "makes as great ravages in Brazil as in Europe. We can venture to calculate that, in the maritime cities, it destroys a fifth part of the population." This fact is so well-known that there has been established at Rio Janeiro a hospital especially for consumptives. Out of 1,225 patients admitted to it in the years 1840, 1841, 1842, there were 952 deaths. In an equal number this disease makes as great ravages among the whites as the blacks. The mortality is greatest among women. According to Dr. Pereira De Costa, it rages more fearfully among the young sailors. At the Marine Hospital of that city, they reckon, ordinary years, that phthisis causes a third part of the number of deaths.

The other parts of Brazil are no more favored. In the South, says Dr. Jubim, at Saint Catherine, at Rio Grande, at Coiritiba, it holds the first rank. The recruits of the navy or army suffer great losses from the ravages of small pox and phthisis. Among the poorer class this latter disease is set down for a fifth part of the mortality, and a seventh part of those in hospitals. In the North, diseases of the chest are very common. At Para, they rapidly run into marasmus. "At Bahia, phthisis is fearful from the rapidity of its progress; it is ranked as the first of acute diseases. I have seen patients die of it in less than two or three months."† It is the same in

* *Du Climat et des Maladies du Brésil.* Paris, 1844.

† Justiniano da Sylva Gamez, agrégé de la Faculté de Médecine de Bahia.

the great cities of the interior. At Brazil, as at the Isle of Bourbon, as in Italy, and in the South of France, as is the case everywhere that it assumes these fearful characters of frequency and rapidity, they believe in the contagiousness of phthisis. Physicians themselves appear to share in this opinion.

Death usually occurs after abundant expectoration or colliquative sweats—a termination more frequent among the whites, and especially the women, than among the blacks. Sometimes, also, abundant hæmoptysis closes the scene. Doctor Sigaud, from whom I borrow these particulars, recommends highly a residence in the mountains. He recommends to patients the small Swiss colony of Morro Quémado, and of Cantagallo, situated at a short distance from Rio Janeiro, in an elevated region. Those sick at Bahia go, with benefit, to the high lands called Catingas. He also recommends sea voyages, and cites two cases in support of it. But we can easily conceive that one ought, by all means, to escape from such a country, and that the sea cannot offer to consumptives worse conditions.

Let us say, finally, since we have touched on this question, in speaking of Tahiti, that intermittent fevers are very common at Brazil, that they have assumed a more grave character within a few years, and that they put their stamp on the entire pathology of the country. It appears that, in Brazil, consumptives are never benefitted by being in marshy regions. Those whom Mr. Sigaud sent to Lagoa de Freytas, to Iguassu, to Surnhy, have not been benefitted by the change.

I do not need to add that a residence in Brazil is one of those which must be most decidedly forbidden to tuberculous persons.

Guiana.—Guiana is a flat country, watered by a multitude of streams, covered with marshes, surrounded by a girdle of mangroves, and subject during six months of the year to deluging rains. The temperature, lower than that of Senegal, Madagascar, and India, varies from twenty-four to twenty-eight degrees. One would suppose, in such conditions, that intermittent fevers would be the foundation of its pathology. They present, in general, less grave characters than those of Senegal

and Madagascar, but they are of a deplorable tenacity. This can be shown always to be the case among the soldiers and the overseers of the convicts, when they return to France on sick leave. They are especially very common at the detached posts. Acute diseases of the respiratory organs are not rare there. "Notwithstanding the elevated temperature of Guiana and Cayenne, pulmonary phthisis is somewhat common there, although less frequent there than in France."*

Of a body of 1018 soldiers, there were observed at Simmari, 133 affections of the chest, and at Cayenne 88 out of 600 (Sigaud). Out of 3,340 patients, treated at the hospital at Cayenne, during the year 1853 and the first six months of 1854, 168 were admitted on account of acute bronchitis, pleurisy, or pneumonias, 48 for chronic bronchitis, 7 for hæmoptysis, 6 for confirmed phthisis. Five of these consumptives died; one of them, a soldier, within three months of his arrival in the colony. Of 121 deaths, occurring in these eighteen months, phthisis stands only 1 in 24.2—a proportion little smaller than that which we have above given, which includes only the year 1853, but which is explained by the large number of consumptives sent back to France; since, out of 368 sick men returned from Cayenne at different periods, 56 were suffering from phthisis. In unhealthy countries it is necessary, we have said, to take less account of the mortality than of the effective men, and this latter mode of comparison gives, for the year 1853, 1 death from phthisis to 165 soldiers—a proportion four times and a half greater than that which Benoiston de Chateauneuf gives for the army.

As to the sick persons who arrive there, I have already quoted the opinion of Sigaud; a consumptive himself, he has no occasion to congratulate himself on his residence in Guiana. I heard him at Cayenne, in 1838, much regret the climate of France, and sigh for his return. His health was, in fact, improved there, but he did not any the less yield to his inexorable disease. Dr. Laure, who now occupies the same position, has recently given similar advice on the impropriety of emigration to Guiana. "Thoracic affections," says he, "are common in

* Chervin Lettre à Mr. Latour.

cold countries, are soothed in temperate countries, and gallop under the equator, where the air is insufficient."

With regard to the West Indies, the author has added little to what he has above said on the subject of mortality in the naval infantry.

Extra Tropical Climates.

I. *Spain*.—Spain does not appear to be adapted to consumptives. "Phthisis is not rare in the southern part of the Spanish peninsula, notwithstanding the softness and constancy of the climate."^{*} "It has also been proved that pulmonary consumption prevails extensively in Spain and Portugal, especially in the capitals of the two kingdoms."[†]

Cadiz.—At Cadiz, the only place in Spain which I have visited, acute diseases of the chest are common and serious. The geographical position sufficiently explains it. Surrounded on all sides by the sea, it is swept by the ocean winds which cool the air and fill it with moisture, while the strong easterly breezes which come from the land and alternate with them, produce a dry and oppressive heat. Ships stationed there, always report among their sick, a pretty large number of acute affections of the respiratory passages. The brig *Endymion* in 1835 and 1837, suffered from an epidemic influenza, and sent back to France ten men in advanced phthisis.

Gibraltar.—As to Gibraltar, all opinions agree to such an extent that it is useless to cite them. Phthisis causes great losses in the English garrison. It is, says Mr. Hennen, the true endemic of this rock. Out of 60,269 soldiers, who have passed nineteen years there, they report 394 consumptives, 1 in 178.[‡]

The eastern coast has the appearance of better conditions, but we have not proofs sufficient to make us believe it to be preferable to other points of the Mediterranean, and, in the opinion of all, especially in that of Andral,[§] phthisis is one of the most prevalent diseases of this coast.

^{*} Chervin letter to Mr. Latour.

[†] M. Andral, additions to Laënnec.

[‡] Mr. Tulloch, *op. cit.*

[§] Laënnec's treatise on Medical Auscultation, additions by Andral.

Baleares.—The Balearic Islands ought perhaps to be an exception. The city of Palma, at Majorca, appears to me, to fulfil a part of the conditions which I have enunciated. It is situated at the head of a bay opening on the southern side. It is sheltered from the North winds by high mountains. The temperature is somewhat elevated but uniform; the nights there are not too cool. During the stay which the Mediterranean squadron made there in 1846, there was but little sickness in it. When I visited the hospital at Palma, it contained but a small number; the greater part being women affected with syphilis. It will be supposed that with such premises I shall not venture to recommend a residence in it to consumptives. I have only desired to draw attention to a point little understood, but which deserves to be.

II. *France.*—*Marseilles.*—The South of France will not detain us a long time. It presents few localities in which a residence is suited to tuberculous persons. "Avoid Marseilles, and all the Mediterranean coast; avoid Montpellier, Pau, Bayonne," says Andral. At Marseilles, according to D. Raymond,* the dryness of the air is excessive, and the prevalence of the north-west wind, which is ordinarily very cold, makes affections of the chest prevail there. Phthisis is the most common disease after acute diseases; women are more subject to it than men. It is principally in the Summer that it begins and that it terminates. Out of *nine* adults *two* die of it, and out of *twenty-three* adults *ten* die of diseases of the chest. Doctor Brunache has proved, from the registers of the Hotel Dieu of that city, that they show *one* consumptive in every *four* deaths.

Toulon.—In this respect, Toulon is in the same condition with Marseilles. The northwest wind blows there with still more violence, and causes so sudden depressions of temperature and such a dryness, that its effects are felt in closed rooms.

We have before pointed out the number of consumptives who died at the Marine Hospital in 1853 and 1854, and yet this proportion, large as it is, is diminished by the epidemic of cholera which decimated the population in the course of this latter year. Cannes and Ciotat, are in the same category.

* Memoirs of the Royal Medical Society, t. ii, p. 128.

Montpellier.—The city of Montpellier, though farther from the sea, does not offer to tuberculous persons any safe asylum. One of the Professors, who have made the Faculty of this city famous, Baumes, thus expresses himself with regard to it : "The North wind most commonly prevails during the Winter and Spring. Its violence is frequently very uncomfortable, because it is very cold from having passed over the snow on the neighboring mountains. It is necessary to have a healthy chest to resist its influence."* According to a topography, published in 1810, by Muret, out of 2,750 admissions, in 1763, at the Hotel Dieu of that city, there were 154 deaths, of which 55 were from phthisis,—more than a third.†

Aix.—The city of Aix, formerly much frequented by consumptives, does not appear to have merited its reputation. It blows there as much and is at least as warm as at Marseilles. *Pau* is no more favorable, according to MM. Andral and Bricheteau.

Hyères.—The only point fit for them in the South of France, is the little town of Hyères, and not the Islands, which are only uninhabitable rocks. Hyères is but four leagues from Toulon, but it is separated from it by a chain of hills, on the southern slope of which it is built, and which protect it from the mistral which, however, blows strong enough here. Somewhat elevated, sufficiently remote from the sea, to have nothing to dread from the saltiness of the coast, lost in the midst of orange trees and hedges of bay roses, it makes the most charming residence which a patient can choose. Mr. Barth‡ has set forth its advantages with such talent, that one can scarcely add anything to the portrait which he has drawn of it. Affections of the respiratory apparatus, pulmonary catarrhs, chronic pleurisies slow to disappear, asthma, pulmonary emphysema, ought evidently to improve in this mild and pure air. As to pulmonary tubercles, I confess my confidence does not go so far as that of Mr. Barth. 'The cemetery of Hyères (he could have assured himself as I have done) is filled with consumptives, and death

* Treatise on pulmonary phthisis. Paris, 1805, t. i, p. 237.

† Mr. Bricheteau, *loc. cit.*

‡ Notice topographique et médicale sur la ville d'Hyères, Paris, 1839.

sparers only a small number of those who seek there a refuge. The physicians of the country also, acknowledge this. "A large number of consumptives come there every year," say Mr. Andral, "not to find there a complete cure of their disease, but a less or greater prolongation of their life." This appreciation is unfortunately too true.

III. *Italy.—A. The Northern Portion.*—Italy is more favored than France in respect to climate. It offers to patients many more resources, it has many more charms for them. It is in general towards these cheerful countries that they direct their steps. It is the refuge for the consumptives of all countries, but one cannot safely advise them to remain there absolutely. Many of the cities, especially among those up the coast, are more unfavorable to them than the centre or even the North of France.

Nice.—This is one of the points which they prefer, and yet it removes them from the resources and pleasures which a large city offers. Nice is not comparable to Hyères in a hygienic point of view. Mr. Barth has observed, that it is near to the Alps, which are only four leagues distant; that it is situated on the border of the sea, and consequently is more exposed to rains and fogs; that it is crossed by a torrent which keeps it damp; and that the temperature is less elevated and less constant, than at Hyères. If Nice is sheltered from the northwest winds, the East winds, which prevail there especially in April and May, are quite as injurious to tuberculous persons. Changes of temperature are common, says Fodéré; I have seen many English, who had sought for health at Nice, suddenly die there. An English physician, Dr. Pugh, has made similar observations. "Of seven persons (six young men and one female advanced in life) attacked by phthisis, all died during the course of the Winter at Nice. If they had remained in England, or in the South of France, I firmly believe, says he, that of the six, four would still be living,—their dissolution would have been at least deferred. Many among the English, reaching Nice in good health, are attacked by severe inflammatory fevers, and all suffer more or less from the lungs." At the hospital of Nice, according to M. Bricheteau, one-seventh of the deaths

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are due to phthisis. "It is wrong then, for physicians to advise a residence in this city."*

Menton, Villefranche, Monaco.—The same cannot be said of Menton and Villefranche. According to M. Carrière, there are few localities, the climate of which agrees better with the tuberculous. It is mild without being too humid, warm without ceasing to be temperate. The thermometrical oscillations there, are so seldom and so slight, that they can never produce any severe shocks upon even the most debilitated organizations. If it were not for the water of its lagunes and its mineral springs, Venice, according to this author, would have to yield the palm to Menton.† Monaco does not enjoy the same advantages; the inconstancy of its temperature, should prevent its being sought as a residence for the phthisical (Carrière, *Climat de l'Italie*).

Genoa.—Genoa agrees with them much less. On account of its situation, it receives the influence of every wind which blows from the different points of the horizon. The northwest wind prevails as tumultuously perhaps as in the gulf of Naples. The mean temperature of Winter is quite high, $8^{\circ}.49$. It is higher than that of Rome, $8^{\circ}.1$, but it does not exclude the thermometrical caprices which are repeated with great frequency during the cold season. It should be excluded from the medical stations, which may serve therapeutically, in chronic diseases. The diseases which occupy the first rank in the pathology of this city, are pneumonias, rheumatisms, catarrhs, and phthisis.‡ This last disease comprises a sixth of the deaths.

The other parts of the coast do not partake of these causes of insalubrity. From Genoa to Spezzia, the road passes through a series of cities and villages protected by high mountains, and presenting the most favorable hygienic conditions. Nervi, Chiavari, Servi, Moneglia, the bay of Spezzia, enjoy a very mild climate. This admirable roadstead, in which I

* Andral, *Cours de pathologie*.

† Ed. Carrière, *Le climat de l'Italie, sous le rapport hygiénique et médical*, Paris, 1849.

‡ Carrière, *loc. cit.*

passed several days during the month of September, 1846, seems to me to merit its reputation in every particular.

Milan.—Passing towards the North, the climacteric influences change in a marked manner. Milan is exposed to every wind. The South wind reaches it, coming from the Appenines; the West and the Southwest, after having crossed the Alps. The temperature in Milan, is cold and very variable. The thermometer has been seen to fall to 15° below zero. The mean of Winter is $1^{\circ}.99$. The climate of this capitol is not good then for consumptives. They go to Milan but do not remain there.

The shores of the lakes Maggiore and Como, are far preferable; the latter especially, can be of great service in chronic affections of the chest (Carrière).

Venice.—Venice is, by general consent, one of the cities of Italy the best suited to the tuberculous. It would be impossible, says Carrière, to invent a climate which would be more favorable to them. There, there are no violent winds, no sudden transitions. The mean temperature of the year, is $13^{\circ}.26$ the mean Winter, $3^{\circ}.35$, that of Summer, $22^{\circ}.82$. The diurnal oscillations are very feeble, phthisis very rare. Brera had already made this observation; M. Ollivier (of Angers) has verified it. Of 1200 patients admitted annually into the hospital of this city, but seven or eight are consumptive.* An Italian physician, Dr. Hyacinth Namias, published a few years since, upon the climate of Venice, a book, of which the *Gazette Médicale* has given an analysis. (Paris, 1848, page 249.) He enters into the same considerations as M. Carrière, and also remarks the rarity of phthisis; but from a sentiment of reserve easy to be appreciated, he abstains from drawing any conclusion relative to emigration.

B. The Middle Portion of Italy.—Pisa.—Pisa is generally regarded as occupying the same rank as Venice. M. Briche-teau has even placed it before Venice. It is, says he, a kind of hot-house, where one is admirably protected from atmospheric variations; it is one of the medical stations which receives the most patients. Nevertheless, the climate is a little too humid; M. Carrière thinks so, and I think I also remarked this when

* Bulletin de l'Académie, t. ix, p. 173.

I was there, in 1846. There, as elsewhere, many die of phthisis; a great many succumbing shortly after their arrival. I might cite a painful example, of which all France preserves the remembrance. It is even admitted in the local practice, that the climate of Pisa may be injurious in the last stages of the disease.

Leghorn.—Pisa is the last station, proper for the tuberculous, which we shall meet going towards the South. At Leghorn, phthisis comprises nearly a ninth of the whole mortality.*

Sienna.—At Sienna, the northwest wind, so unhealthy upon the shores of the Mediterranean, blows with violence upon an unsheltered locality, and keeps up a continual agitation in the atmosphere. A residence at Sienna is mortal to consumptives. (Carrière.)

* *Florence.*—That of Florence, is perhaps, worse still. M. Andral believes it to be more injurious than that of Genoa and Naples. The cold is severe in Winter, the heat intense in Summer. The North wind blows so often, that the opposite winds do not neutralize the effects; the transitions are sudden and frequent. The essentially changeable character of the climate makes a residence dangerous. According to the statistics, established by M. Journé, for the Hospital Santa Maria Novella, the proportion of phthisis to the whole mortality, is as 1 to 6½. It is true, that in another table it is only one-eleventh.

Rome.—The climate of Rome is humid and unhealthy. Intermitting fevers predominate. They rage from July until September. That is the season of the malaria. Almost all the great Roman families emigrate during this season. When I was there in the month of August, 1846, all the palaces were deserted. The temperature is quite uniform, and the winds from the South predominate.

The city of Rome has enjoyed for a long time, in the treatment of pulmonary phthisis, a reputation which commences to decline, since the presence of an army of occupation has given an opportunity to French physicians to study it. "A residence

* Journé, Recherches statistiques, sur la phthisie en Italie. Bulletin de l'Académie, Paris, 1839, t. iii, p. 547.

at Rome is very favorable to consumptives, particularly in the first period, and especially when there is pulmonary irritability. Phthisis comprises but a twentieth of the deaths."* M. Carrière gives a similar opinion. It is the same with M. Briche-teau : "The climate of Rome, says he, may be considered as the second of Italy, in relation to its effect upon diseases of the chest; it is eminently useful to persons threatened with phthisis, but is not good in the last two stages of this disease. M. d'Assis even pretends that the progress of phthisis is more rapid there than in England."

Recent observations are opposed to this view of the case. From the observations made by Journé, it results that at San Giovanni di Lateran, among 2,540 women, admitted from 1834 to 1836, 126 were afflicted with phthisis, and that during the same time, of 379 deaths, 110 were due to this cause, which gives the frightful proportion of 1 to 3.25, a figure which is only surpassed at Naples.

This disease made greater ravages in the army of occupation, than in France, among the same number of soldiers. M. Felix Jaquot* gives the following table of deaths during 1851 :—

Pernicious fevers,	- - - - -	15
Typhoid fevers,	- - - - -	12
Cerebro-spinal meningitis,	- - - - -	9
Pulmonary phthisis,	- - - - -	7
Chronic pleurisy,	- - - - -	4
Variola,	- - - - -	4
Organic affections of the heart,	- - - - -	3
Paludian cachexia, ascites,	- - - - -	3
Concussion of the spinal marrow,	- - - - -	2
Traumatic encephalitis,	- - - - -	2
Chronic diarrhoea,	- - - - -	1
Malignant rugeola,	- - - - -	1
Sporadic cholera,	- - - - -	1
Pulmonary catarrh,	- - - - -	1
White swelling,	- - - - -	1
Traumatic peritonitis,	- - - - -	1
Traumatic tetanus,	- - - - -	1
Total,	- - - - -	68

* M. Andral, Clinique Medicale.

† Histoire médicale du corps d'occupation des Etats Romains dans *Gazette Médicale*, 1854, p. 438.

In 1850, the diseases did not hold the same position upon the scale :—

Pernicious fevers and cachexias, - - -	21
Pulmonary phthisis, - - - - -	11
Cerebro-spinal meningitis, - - - - -	3
Typhoid fever, - - - - -	2
	<hr/>
Total, - - - - -	37

M. Jacquot justly calls attention to the frequency of pulmonary phthisis. It occupies the second rank in 1850, and the fourth in 1851. During the last year, there were seven victims among sixty-eight deaths, or 1 to 9.71, a proportion much larger than that we have assigned, according to M. Benoiston de Chateauneuf, to the French Infantry (1 to 13.6). We here see, then, a corps of the army, composed at their departure of men perfectly well, having left in the hospitals of France all who were suspected of being sick; it remained in the country recommended as a residence for consumptives, and it loses by this disease a fourth more than it would in France. I believe that hereafter these facts should be taken into serious consideration, when patients are recommended to the Eternal City.

I cannot help remarking, before proceeding farther, that at Rome, which M. Boudin cites as one of the localities where the law of antagonism is verified, intermittent fevers, typhoid fever, and, phthisis, prevail together, and with an intensity which does not admit of a doubt.

C. Southern Portion of Italy.—Naples.—Naples, with which we shall end this review of Italy, does not present the same uncertainty. Every one considers it, and with reason, as one of the cities of the world where most consumptives die. This is not surprising to those who are acquainted with the vicissitudes of this beautiful Neapolitan sky. Situated between the sea and the Appenines, exposed to the cold air which descends from these mountains, to the South wind which has crossed the burning deserts of Africa, it passes at every moment through the alternation of dryness and moisture, of cold and heat, which must be fatal to consumptives. The thermometer falls at times below zero; it snows there, and rain falls during Win-

ter in torrents, and commences even in Autumn. During my residence there in August, 1846, it rained almost every day. Without doubt these atmospheric vicissitudes are of short duration, and that city is none the less for that, the most seductive of all Italy; but consumptives should guard against the attractions which draw them there. According to the statistics of M. Journé, phthisis in the civil hospitals is to the whole mortality as 1 to 2 $\frac{1}{2}$, and in the military hospital as 1 to 3 $\frac{1}{2}$, a proportion which greatly surpasses, especially for the latter, that which takes place by the same calculation, in the hospitals of Paris. According to Requin (*Gazette Médicale*, 1834), it would be, it is true, less; it would not surpass a tenth for the military, and a fifteenth for the rest of the population. Even accepting these last data, the gulf of Naples is one of the portions of Italy which should be interdicted in the most formal manner to consumptives. It is the same with that of Salerno. Gaëta, on the contrary, seems to offer them better climacteric conditions.*

Sicily.—I have not sufficient data, whereupon to form a reasonable opinion upon the subject of Sicily. I am only acquainted with Syracuse and Messina, and I do not advise a residence there. In the bay of Syracuse, there is, during Summer, an overpowering heat. The southerly breezes blow strongly, and I do not believe that I have felt, even in Bengal, a wind more burning than that there. It seems to be not quite as hot at Messina; but the wind shut up in the narrow gorge which the mountains of Calabria form with the eastern extremity of the chain which divides Sicily, prevails with strength in this defile.

From the foregoing facts, relative to the influence of navigation, as well as of warm climates, we believe the following conclusions can be drawn :—

I. Sea voyages accelerate the progress of pulmonary tuberculization more frequently by far, than they retard it.

II. This disease, far from being rare among mariners, is upon the contrary, more frequent among them than in the army upon

* Carrière, op. cit. page 235.

land. It rages with the same intensity in the hospitals of our ports, at our stations, in our squadrons. The marine officers, physicians, commissaires, in a word, all who go to sea are subject to this common law.

III. With rare exceptions, which it is proper to admit, in presence of a few facts reported by men worthy of belief, phthisis progresses aboard ship, with more rapidity, than upon land.

IV. The naval professions should be interdicted, in the most formal manner, to young men who seem to be threatened with phthisis, to whom it has been the habit to recommend them.

V. Tuberculous persons can receive benefits from going to sea, only by being placed aboard ship under particular hygienic conditions, by changing climate and locality, according to the seasons and atmospheric vicissitudes, which it is impossible to realize upon ships having a mission to fulfil. Journeys by land, a prolonged residence in a well chosen country, permit the same end to be attained with less expense and less danger.

VI. Warm countries, regarded as a whole, exercise a bad influence upon the progress of tuberculization, and accelerate its course.

VII. Those situated under the torrid zone (warm countries properly so-called), especially partake of this sad prerogative, and a residence there should be positively interdicted to consumptives. The unanimous opinions of the physicians-in-chief of our colonies and of the English colonies; the comparative statistics of colonial troops of the regiments of Europe in the two countries; the frequency of phthisis in our inter-tropical stations, and in English governments situated under the same latitude; a multitude of special observations demonstrate it in the most positive manner: the examination of each locality in particular confirms it.

VIII. Most warm countries situated without the equatorial zone, are also prejudicial to consumptives. A few places upon the confines of that region, and concentrated in a narrow space are exceptions. They owe this to local conditions. A residence there guarantees consumptives from acute affections of the air passages which accelerate the progress of tuberculization, permits them to lead a kind of life better fitted

to preserve their strength, sometimes prolongs their existence, and always in every instance contributes to soothe their last moments.

IX. The first period of phthisis is the proper time to advise emigration, from which good results may be expected.

Traumatic Hernia of the Lung. By M. LARREY. Read before the Surgical Society, of Paris. Translated for the MONTHLY from the *Gazette Hebdomadaire*.

M. M—, Lieutenant, was wounded in the Crimea, June 8th, 1855, at the assault of the Malakoff, by a ball which passed through his chest. It entered the left lateral region, perpendicular to the thoracic wall, fractured the ninth rib, and passed out behind upon the same horizontal line, at the posterior part of the same rib, near the spine, and upon a level with the spinous processes. The opening in front was smaller than that behind, which fact it is well to notice, particularly on account of the peculiar complications of the wound.

The immediate symptoms were first: an abundant spitting of blood, then an emission of bloody urine; afterwards a hæmorrhage from the wound, and finally a loss of consciousness, which seemed to arrest these symptoms. There is no doubt as to the pulmonary perforation, after the pathognomonic sign of hæmoptysis; but the hæmaturia cannot be as readily accounted for by a lesion of the kidney, because that organ is situated below the track apparently taken by the ball, nor did any symptoms of nephritis afterwards occur.

The wounded man, left for dead upon the ground, was taken up by the Russians, and carried away in the ambulance, but obliged to walk sustained only by his arms, he made a false step and fell. It was when he fell, according to his account, that he felt an undefinable sensation, not a severe pain, in the region of the anterior wound. Placing his hand there he discovered a soft body projecting exteriorly, about the size of a large hen's egg. He instinctively tried to reduce this tumor, but failing, he endeavored to retain it by his handkerchief, feeling a little more difficulty in breathing but no pain in the abdomen. This is also a fact worthy of notice.

Coming up to the ambulance a few minutes after, he was attended by a Russian surgeon, who carefully examined the wound, seemed to recognize a hernia of the lung injured by the projectile, but did not attempt to reduce it. He first applied a strong ligature about its base, and each day after tightened it by degrees, at the same time sprinkling over the tumor a caustic powder, to hasten the elimination.

The consecutive symptoms corresponded with the severity of the wound. The spitting of blood continued for fifteen days, varying in quantity; the pain in the wounds was more severe at that one where the hernia was, while the difficulty of respiration induced frequent attacks of coughing. A few splinters of the fractured rib became detached, and the hernial part, reduced to a blackish and shrivelled mass, was finally eliminated at the end of six weeks. Adhesions formed around the wound, between the costal pleura and the pulmonary pleura, and this opening kept up by the splinters of bone, by the hernia, by the ligature, and by the suppuration, finally closed at the end of eight or ten days, and produced at this point a firm cicatrix. As to the posterior wound made by the exit of the ball, there passed through it first darkish matters of an undetermined nature, eschars without doubt, and perhaps pieces of the clothing as well as secondary and tertiary splinters. But M. M—— could give no precise information upon this point.

Leaving Sebastopol for Simpheropol, the wound opened and suppurated afresh; then being removed he had some cerebral symptoms which seemed to arise from an old wound upon the head received from the bursting of an howitzer, but which passed off with the healing of the wound. It opened once more during the transfer of the wounded man to Odessa, and finally cicatrized upon his return to France.

Coming to Paris, M. M—— had occasion to call upon our friend M. Lenoir, who upon closely examining the cicatrices of the two wounds, found before and upon a level with the anterior wound, evidences of a reducible hernia of the lung. He immediately sent this young officer to the Hospital of Val de Grace, and after taking all the necessary antecedents, ascertained the following present condition by a careful examination.

In the region of the lateral wound of the chest, immediately below and upon a line with the cicatrix, there exists a prominent elevation of the skin, which even during the recumbent posture is of the size of the last phalanx of the thumb. The cicatrix passes over nearly the longest diameter of it; it is thin, depressible, and of a consistence quite analogous to that of an enlarged nipple, but not turgescient. The tumor gives the sensation, not of fluctuation, but of elasticity, like an expansible and reducible tissue, to such a degree that it is effaced and completely disappears upon methodical pressure. It seems even to pass beyond a rounded opening with firm borders, to the bottom of which the end of the finger penetrates. This tumor, as soon as pressure is removed, reappears spontaneously, and projects still more during the effort of coughing, at the same time becoming more extended. It also increases while walking, or even in the standing position if prolonged, but rarely attains twice its ordinary volume. The respiratory murmur is heard with difficulty and very indistinctly by means of immediate auscultation; it is, however, pure and unaccompanied by râles. It is perceived by the stethoscope better than by the unaided ear, and in expiration only, not at all in inspiration. Percussion furnishes no sound of any utility to diagnosis. I invite our honorable colleague M. Morel-Lavallée, to verify this diagnosis, by his special investigations upon pulmonary hernias.

The simple indication in this case from the easily reducible condition of the pneumonocoele, is to retain it reduced by the aid of a bandage. The first apparatus made by M. Charrière could not be endured, because being too small it painfully compressed the base of the chest and the epigastrium, like a tightly drawn belt. A second apparatus, made much larger, like a corsage, with suspenders, and furnished with quite a large convex pad, fully met this indication, and permitted M. M—— to walk and cough without any displacement of the bandage or of the hernia.

Such are the conditions of the patient presented by M. Larrey, which elicited the following discussion :—

M. Morel-Lavallée, in his investigations of hernia of the lung, has never before seen a case like this one. The tumor formed

by the hernia, ordinarily disappears during inspiration, and is inflated during expiration. In the present case, on the contrary, these two acts are not clearly marked, a circumstance which may give rise to some doubts concerning the diagnosis. We might almost believe that it is a case of omental hernia; the completely unprecedented position of the tumor would not destroy this hypothesis, for M. Morel has seen an equally singular case, in which the omentum made its appearance externally, through the thoracic wall, in consequence of a wound which had involved at the same time this wall and the diaphragm.

Still the patient of M. Larrey is really affected with pulmonary hernia, for a very characteristic sign of it is present; if we attempt, in fact, to press upon the tumor, in order to reduce it, we perceive a slight crepitation, which indicates the presence of a pulmonary lobule. We may further remark that this tumor does not increase in size when we cause the patient to make an effort of straining. This is, however, merely a negative sign, which M. Morel has more than once noted in pulmonary hernias. On the contrary, in those cases where a straining effort has no effect whatever upon the pulmonary hernia, the slightest cry, the effort of talking, of coughing, in a word, every sudden expiration causes an immediate enlargement of the hernia of the lung. These facts are embarrassing and have diminished the confidence which M. Morel has accorded to the ingenious theory concerning the straining effort, which has been propounded by M. Cloquet.

Herein lies the difficulty: according to this theory, this straining effort is accompanied by an occlusion of the glottis; the air being thus imprisoned in the bronchial cavities, the slightest contraction of the chest, caused by the expiratory muscles, must press upon this air, and the latter, in its turn, finding in the pulmonary hernia a point freed from the resistance of the thoracic wall, must inflate the herniated viscera, and cause it to project externally.

But the observation of facts does not confirm this proposed theory; moreover, M. Morel has met with other facts which are not explained by it. Certain patients have purulent collections in the pleura, collections which cause a tumor under the skin, or which communicate with the exterior by a fistula.

According to the theory of M. Cloquet, any act of straining must enlarge the liquid tumor or cause a certain quantity of the effused fluid to issue by the fistula; in fact, neither of these phenomena presents itself. If, on the contrary, we cause the patient to make a sudden expiration, even though it be slight, immediately the subcutaneous liquid collection seems to increase, the liquid often springs in a jet from the fistula.

Such are the facts which embarrass M. Morel, and which are not sufficiently accounted for by the theory of M. Cloquet, in other respects so remarkable.

M. Cloquet thinks that the patient who has just been presented, is not a suitable one for the study of the influence of the respiratory movements upon pulmonary hernia. The portion of the viscera which forms the tumor, has doubtless contracted adhesions with the opening of the thoracic wall, in consequence of the ligature which was applied. When these adhesions are wanting, he has remarked for a long time past, that pulmonary hernia is diminished during inspiration and enlarged during expiration, as in coughing and straining.

As to his theory concerning the effort of straining, *M. Cloquet* adheres to it, because he believes it to be correct, in spite of the discussion which he was formerly obliged to sustain on this point with a professor of physiology, who could not pardon him for not being of the same opinion with himself.

He believes also in the occlusion of the glottis, which is indispensable to furnish a point of resistance to the air enclosed in the lung. Consequently the glottis being closed, the hernial tumor must necessarily become inflated, when the thoracic wall and the diaphragm tend, on every side, to narrow the pulmonary cavity.

M. Morel replied that in hernias without adhesions, and in which the respiratory murmur is very readily perceived, he has never seen an effort of straining, even though very severe, inflate the chest, when it is unaccompanied by a sudden expiration. This example, added to that of the liquid collections of the mediastinum, proves that in the simple act of straining, the air contained in the lung is not subjected to that degree of tension necessary to inflate the tumor and to expel the liquid.

As to the firmness of the chest, may we not imagine, that it

can be effected otherwise than by the support which the distended lung may lend to its walls? Would not the concurrent action of the muscles, of the ribs, &c., be sufficient to explain it? In the same way as the forearm, for example, is placed in a firm position by the simultaneous contraction of the extensors and flexors?

M. Verneuil. I do not wish to engage the Society in a purely physiological discussion, which, however would only serve to elucidate the differences that have arisen between MM. Morel-Lavallée and Cloquet. I shall content myself with saying that the theory concerning the effort of straining, as it exists at the present time, is not complete. It appears evident that, in certain cases, the glottis closes really to imprison the air contained in the air passages, and that its occlusion contends with the contraction of the expiratory muscles; but it is certainly not always so, and under some circumstances, the glottis remains open for the purposes of respiration and phonation, even when all the muscles of the chest are violently contracted in order to keep this cavity dilated and to render completely immovable the bony parts of which it is formed.

This fact is already well known, and several authors have observed, that energetic and prolonged efforts of straining can be continued for a long time, in spite of the opening of the glottis or the establishment of an artificial passage through the trachea, for example. Recent observations, which I have had it in my power to make, have confirmed this opinion. I have observed for sometime, the struggles of several wrestlers, for the purpose of making certain physiological studies. I have noticed that during the oftentimes prolonged struggle in which they mutually contend, the chest, previously dilated by a strong inspiration, remained afterwards motionless and resisting. During this time, the respiration, nevertheless continued, which necessarily indicated the permeability of the glottis; but it was effected solely by the aid of the diaphragm; the regular rising of the epigastric region clearly indicated it, and could be observed without difficulty, for wrestlers, as is well known, are almost entirely naked.

Having repeated these experiments upon myself, I became convinced, that it was possible to maintain, for a very consid-

erable time, the forced dilation of the thorax, and consequently its immobility, while continuing at the same time to breath, and even to speak, or to shout. The ribs, in this manner, furnish to the muscles of the body and of the thoracic members, a firm point of resistance, indispensable to the contest. I say indispensable, for if, through fatigue or inadvertence, the wrestler allows his thorax to sink, and if, being hard pressed by his adversary, he cannot dilate it anew by an energetic inspiration, he will speedily yield, or at least the contest will become very unequal.

All these physiological observations and many others, on which, to my great regret, I cannot amplify, have determined me to admit for the body, three distinct varieties of effort.

1. The effort which I shall call *general* or *thoraco-abdominal*, and in which there is a contraction of the four sphincters, which serve for the passage of the air, of the alimentary and fœcal matters, and of the urine, otherwise called occlusion of the glottis, of the cardia, of the anus, and of the neck of the bladder. This effort, which corresponds to that described by M. Cloquet, takes place frequently, as for instance, in the action of raising a heavy weight. But it is not durable, for respiration cannot be long suspended. The expiratory muscles are, in this instance especially, energetically contracted.

2. The *abdominal* or *expulsive* effort, in which the expiratory muscles also play the most prominent part in narrowing the abdominal or thoracic cavity, in every direction. In this case, some of the sphincters are closed, while others on the contrary, are open, or are overcome, to allow the passage of air, urine, matters thrown up from the stomach, the fœces, and the child during labor.

3. The *thoracic* effort, in which respiration is not suspended, and which consists especially, not only in the energetic and sudden contraction of the external dilating muscles of the thorax, but also in the continuation, in the persistence of this contraction, which only ceases through the weariness of those muscles, or because the compulsory dilation which they produce in the thorax is overcome by a superior pressure.

The distinction which I have just established, is very fruitful in pathological deductions ; it is of a nature to show all the

light which physiology, even the most minute, can throw upon the precise knowledge of diseases.

M. Morel-Lavallée without wishing to detract from the importance of the observations of *M. Verneuil*, would call attention to the fact that they do not explain the difficulty which he has raised.

M. Cloquet is aware, that in certain muscular efforts, the glottis is not closed, but it is the exception. As to the facts referred to by *M. Morel*, they are too complex, and include too many conditions to be easily explained in this short discussion.

CHRONICLE OF MEDICAL PROGRESS.

Carbonic Acid Gas as a Local Anæsthetic in Uterine Diseases, etc.

Addressed to the New York Academy of Medicine, by *J. Y. SIMPSON, M.D.*

Carbonic Acid is usually recognized by toxicologists as a very powerful narcotic poison, when inhaled in sufficient quantity. The rapidity and potency with which it acts as a general anæsthetic, has long been described by travellers in the experiment of temporarily plunging a dog into an atmosphere of carbonic acid in the Grotto del Cane, at Pozzuoli.

Carbonic acid gas acts also as a local anodyne or anæsthetic. The anæsthetic effect of a stream of carbonic acid, when applied locally, is easily proved by holding any exposed portion of the surface of the body where the skin is thin—as the wrist or forearm—over a jet of the gas, escaping from a common gas receiver. In a minute or two, the surface of the exposed part will be found benumbed, as when it is exposed to the vapor of chloroform; and pinching or irritating it is not followed with so much pain as a similar amount of pinching and irritation applied to the opposite and unexposed wrist or forearm. The degree of local anæsthesia capable of being produced in this way by the vapor of chloroform applied to a portion of the cutaneous surface, is, as I have already stated, not by any means deep and complete; but, in the relative experiments which I have made, it has generally appeared to me to be greater when a jet of carbonic acid gas was used, than when chloroform vapor was employed. And, like chloroform and other analogous agents, car-

bonic acid gas acts more powerfully when applied locally to mucous, than when applied to cutaneous surfaces.

In one respect, carbonic acid will be found preferable to chloroform vapor as a topical anæsthetic to the vagina and uterus. Though the application of the vapor of chloroform to the mucous membranes of the mouth, nose, pharynx, and bronchi, in the way in which it is usually inhaled, does not produce any very marked feeling of warmth in these mucous surfaces, yet its introduction into the genital mucous canals generally creates a disagreeable, and, in some instances, a very painful, though temporary feeling of heat and burning. The injection of carbonic acid gas into the vagina is not followed by any such painful sensation.

I have used carbonic acid as a local anæsthetic, principally in neuralgia of the vagina and uterus, in dysmenorrhœa, and in morbid states of the pelvic organs accompanied with pain, as in carcinoma, &c. I have found it also sometimes of use in irritable states of the neighboring organs. Two years ago I had under my care from Canada the wife of a medical gentleman, who was suffering much from that most distressing disease—dysuria and irritability of the bladder. Many modes of treatment had been tried in vain. The injection of carbonic acid gas into the vaginal canal several times a day at once produced relief, and ultimately effected a perfect cure. She has remained well since her return to America, and lately became a mother. Occasionally relief follows immediately. In two or three instances I have seen the use of the gas continued daily for months. I have notes of one case where the patient was invalided and almost entirely kept to the supine posture for years, from feelings of pain and bearing down in the uterus and neighboring parts, particularly on attempting to sit or walk. Many modes of treatment were tried by myself and others, with little or no benefit. She has, however, at last regained in a great measure the power of progression, and freedom from suffering in the erect posture—a result which she herself ascribes to the local application of carbonic acid gas, which I recommended to her some months ago; and in the use of it she has since regularly persevered.

Since using carbonic acid as a local anæsthetic application in uterine disease, I have met with two or three notices of this use of it by modern authors. In his work on Diseases of Females, published in 1835, the late Dr. Dewees, of Philadelphia, when discussing the treatment of carcinoma uteri, observes, "We have enabled several patients to derive much comfort, as well as temporary relief,

from the extrication of carbonic acid gas within the cavity of the vagina, by means of a flexible tube, of sufficient length and size attached to the mouth of a bottle, in which there is mixed diluted sulphuric acid and the carbonate of lime. This may be introduced into the vagina several times in the twenty-four hours. In two or three instances, this substance has relieved the severity of pain whenever it was employed, as well as diminished the offensiveness of the discharge.*

In cases of painful menstruation or dysmenorrhœa, Professor Mojon of Geneva has recommended the local application of carbonic acid gas.† Dr. Mojon states that in the disease in question he has employed the injection of carbonic acid gas into the vagina in a great number of instances, and generally with decided advantage, the pain being almost always relieved by this treatment. He directs the remedy to be used two or three times a day, and for five or six minutes each time. Like Dr. Dewees, he recommends the gas to be obtained by pouring dilute sulphuric acid on some pieces of chalk in a flask, from which a curved flexible tube carries it into the vagina.

In a paragraph which I have cited in a preceding chapter, from the second edition of the work of Dr. Pereira, on *Materia Medica*, carbonic acid is described as having acted speedily and beneficially in one case as a local sedative in uterine pain. "A lady," he observes, "who had suffered a considerable time from some uterine affection, and had derived no relief from the treatment adopted, was advised to consult a physician in Italy (Dr. Rossi). After he had examined the condition of the uterus, he assured her there was no organic disease, but merely a considerable degree of irritation, for which he proposed to apply carbonic acid as a sedative. This was done by means of a pipe and tube, communicating with a gasometer situated in another room. This patient obtained immediate relief, and although she had been obliged to be carried to the doctor's house on account of the pain experienced in walking, she left it in perfect ease. On her return to England, she had a relapse of the complaint, and applied to Dr. Clutterbuck to know whether she could have the same remedy applied in London, in order to save her the necessity of returning to Italy."‡ This case and paragraph

* Treatise on the Diseases of Females, p. 269.

† Bulletin de Therapeutique.—American Journal of Medical Sciences, vol. xxii. p. 469.

‡ Elements of Materia Medica, vol. i. p. 155.

however, seemed to Dr. Pereira of so little value, that he has omitted the details of it in the last edition of his work. But from the time of reading it, I have tried at various times, and more particularly during the last two or three years, the local application of carbonic acid to the mucous membrane of the vagina and cervix uteri in different painful conditions of the uterus and neighboring parts; and, whilst it has failed in some instances to afford the expected relief, it has in others proved, as I have already stated, of great, and occasionally of almost instantaneous benefit.

In practice I have generally used a common wine bottle for the formation of the carbonic acid gas, and formed the gas by mixing in the bottle six drachms of crystallized tartaric acid with a solution of eight drachms of bicarbonate of soda, in six or seven ounces of water. A long flexible caoutchouc tube conducts the gas from the bottle into the vagina. The cork fixing this tube into the mouth of the bottle, should be adapted so as to prevent any escape of the gas by its sides. With this view the cork should be perforated by a metallic tube, and covered externally with a layer of caoutchouc.

The use of carbonic acid as a local anæsthetic to the uterine mucous surfaces and to other parts of the body, is not a discovery of late times. I have found that in this, as in many other examples, what appeared to me at first novel, was, when fully investigated, a practice known previously in its essence, and perhaps in its more minute details also. Besides here, as elsewhere, when once we detect a principle, such as the anæsthetic power of carbonic acid gas when applied topically, we can explain by it the good effects of modes of practice, which previously perhaps we were inclined to ridicule and reject.

1. In some, for example, of our oldest works on female diseases, as in the Hippocratic writings,* and in the chapters of Paulus Ægineta,† Rueff,‡ Paré,§ &c., referring to uterine affections, direc-

* See Kuhn's edition of Hippocrates, vol. ii. *De Naturâ Muliebri*, pp. 567, 597, &c. *De Morbis Mulierum*, p. 859, &c. "Theophilus describes the process very minutely, but it will be readily understood, that it consisted in introducing the fumes of strong-smelling things, such as frankincense, spikenard, cassia, and storax, into the vagina by means of a funnel." Dr. Adams' edition of the works of Hippocrates, vol. ii. pp. 742 and 748. See also on the Hippocratic method of fumigating the mucous surface of the vagina, Halle and Nysten, in *Diction. des Sciences Medicales*, vol. xvii. p. 135.

† Adams' edition of Paulus Ægineta, vol. i. p. 642, &c.

‡ *The Expert Midwife* (1637), compiled in Latin, by James Rueff, part ii. p. 52, &c.

§ Johnston's Translation of the Whole Works of Ambrose Paré, p. 944, with a description and figure of "a vessel made with a funnel or pipe for to fumigate the wombe."

tions are given for the relief of local pains, &c., in the uterus, by a system of practice which at least included, and perhaps which essentially consisted of the local application of carbonic acid gas to the mucous membrane of the genital canals. I allude to the burning of various herbs, aromatic and medicinal, and the application of the fumes arising from their combustion, by appropriate tubes and instruments, to the interior of the vagina. It is now known to all that the combustion of dried plants and vegetable substances gives rise to the formation of carbonic acid; and the fumigations of the ancients, when they acted beneficially, probably acted much more by the mere topical application of this gas, than by anything aromatic or medicinal contained in the smoke of the burned ingredients.

2. Further, the knowledge of the marked local anæsthetic effects of carbonic acid gas appears to me to explain the good effects sometimes derived from a system of modern practice regarding which I formerly felt great skepticism. I have often been assured by patients, of the soothing and sedative effects of the direct injection from the spring, of streams of various mineral waters, as practised at different German baths. It always seemed to me impossible that the slight amount of alkaline salts which these injection baths or streams contain, could be followed by the sedative effect so often ascribed to them. But from the inquiries that I have made, I believe it will be found that all the mineral waters which, when locally applied, produce this sedative or anæsthetic effect, contain a greater or less quantity of free carbonic acid, rapidly and constantly escaping from them; and the practice in its true therapeutic analysis probably consists only of the local application, in a somewhat clumsy form, of carbonic acid to the genital mucous surfaces. At some of the German watering-places, as Neuheim, Marienbad, &c., the large quantities of carbonic acid thrown off from the mineral wells has latterly been collected, and applied *per se* in the form of baths, jets, and streams, to different parts of the cutaneous and mucous surface—as to the uterus in neuralgia, &c., to the limbs when ulcerated, to the eye in irritable chronic ophthalmia, &c., &c. These uses of carbonic acid have been followed out, without, I believe, any tenable rationale having been suggested of the probable mode of action of the treatment. The utility of the practice, which I have been assured by my friend Dr. Funck of Frankfort, is most marked in some diseased states, will find I believe, its true explanation in the local anæsthetic effect of carbonic

acid. And if so, it is scarcely necessary to add, the remedy may be artificially made, and readily applied at any time, and at any place, and in the practice of any physician.

3. A knowledge of the topical anæsthetic effects of carbonic acid serves perhaps also to afford an explanation of other points in common therapeutics. There are, for example, circumstances in medical practice in which we either incidentally or intentionally apply carbonic acid to the gastric and intestinal mucous membrane. In gastric irritability and nausea, physicians, since the time of Riverius,* have constantly been in the habit of prescribing effervescing saline draughts, or artificial aerated waters, which throw off a great quantity of carbonic acid after their introduction into the stomach. In some instances the antacid action of the alkali may explain this effect; but is not the sedative action of these draughts, in most instances, dependent upon the local anæsthetic effect upon the mucous surface of the stomach of the large quantities of carbonic acid which they eliminate?

Dr. Pereira refers to Mr. Parkins' late recommendation† of the topical application of carbonic acid gas as a clyster in dysentery and diarrhœa. But neither Dr. Pereira nor Mr. Parkins seem to be aware that the practice is not altogether novel. As long ago as 1772, in a case of diarrhœa, complicating continued fever, Mr. Hey of Leeds threw up into the rectum, on two successive days, injections of carbonic acid gas. This practice had, as he supposed, the best effects—both the frequency and fœtor of the stools being apparently diminished by it.‡ Dr. Percival of Manchester also published in Dr. Priestley's work "two similar instances of the salutary effects of mephitic air thus administered as an enema."§ The same practice was also adopted in the last century by Dr. Warren of Taunton,

* The celebrated anti-nauseant and anti-emetic potion of Riverius was composed of a solution of a scruple of salt of wormwood (an impure carbonate of potass), mixed with a table-spoonful of lemon-juice. He describes it as a "*remedium præstantissimum, præsertim in vomitu qui febribus malignis solet contingere.*"—*Praxis Medica*, lib. ix. cap. 7; et *Centuria Observationum*, obs. 15.

† On the Efficacy of Carbonic Acid Gas in the Diseases of Tropical Climates, &c.—*London Medical Gazette*, vol. xviii. p. 777.

‡ See A Letter from Mr. Hey concerning the Effects of Fixed Air applied by way of Clyster, in Dr. Priestley's work, vol. ii. p. 292.

§ See Dr. Dobson's Medical Commentary on Fixed Air. London, 1787, p. 14. Dr. Priestley on Air, vol. ii. p. 375. Dr. Priestley's Experiments, &c., on the Different Kinds of Air, vol. i. p. 305.

and Dr. Rotheram.* "May we not," asks Dr. Percival, "presume that the same remedy, viz., enemata of carbonic acid gas, would be equally useful in dysentery?"† Dr. Henry subsequently recorded two cases of dysentery in which the use of carbonic acid clysters was, in his opinion, followed by very marked relief of the abdominal pains and swelling, and a diminution of the fœtor of the discharges‡

4. Carbonic acid, when applied to the surface of the body—the skin having been previously removed—acts as a local anæsthetic. A practice which probably depends for its utility on this principle has long been in vogue. The old yeast poultice (*Cataplasma cerevisia*) exhales from its surface a quantity of carbonic acid gas; and, perhaps, the beneficial and anodyne effects which surgeons formerly ascribed to it in the treatment of irritable and sloughing sores was in a great degree owing to the carbonic acid eliminated from it serving as a local anæsthetic and antiseptic. The constantly recurring motion, however, of points in the surface of the poultice, from bubbles of the gas mechanically raising and bursting it, does, no doubt, more than counteract, in some instances, any sedative effect that is derivable from the topical anæsthetic application of the carbonic acid. And perhaps far simpler means could be easily devised to keep an open and painful ulcer or wound in contact with a sufficient quantity of carbonic acid. Dr. Percival states that in the application of pure carbonic acid gas to a carcinomatous sore, the sanies of the cancer was "sweetened by it, the pain mitigated, and a better digestion produced."§ Dr. Ewart, of Bath, applied it locally in two cases of ulcerated cancer of the mamma. In the first of these cases the ulcer, which was nearly five inches long, three inches broad, and about two inches long at its greatest depth, entirely, though temporarily, closed up and cicatrized in three months, under the constant local application of carbonic acid gas. In the second case the cancerous ulcer was larger, very irregular on its surface, and discharged a thin, mucous, fœtid matter. It filled

* See Percival's Essays, vol. iii. p. 237.

† Priestley on Air, vol. i. p. 305.

‡ Experiments and Observations on Different Subjects, p. 125.

§ Priestley's Work on Airs, vol. i. p. 302. Dr. Percival cites also the following case:—"A physician who had a very painful apthous ulcer at the point of his tongue, found great relief, when other remedies failed, from the application of fixed air to the part affected. He held his tongue over an effervescing mixture of potash and vinegar, and as the pain was always mitigated, and generally removed by this vaporization, he repeated it whenever the anguish arising from the ulcer was more than usually severe."

up and contracted somewhat in its dimensions under the use of carbonic acid ; and at the date of his report, viz., at the end of two months' application of it, Dr. Ewart observes that at least the gas "has kept a person in ease and comfort, who for so great a length of time before had known only agony and torture." "What," he elsewhere observes, "strikes us in the two preceding cases with the greatest astonishment, is the almost instantaneous relief of pain, which never failed to follow the application of the gas."* The celebrated Dr. Ingenhouz, who saw one of these cases, in which a "large cancerous ulcer of the breast" had temporarily cicatrized under the local application of carbonic acid, and then re-opened, states that still the ulcer "gives no pain when she (the patient) applies the air."†

The application of the carbonic acid gas was, however, speedily recognized as not capable of producing a cure, but as capable of producing alleviation only. "The public prints," observes the celebrated French chemist, Fourcroy, "contain accounts of several instances of the cure of cancer made in England by the application of the carbonic acid. We can nevertheless assert, that this means has been used by ourselves and others, without success, several times. After the first application, the cancerous ulcer exhibits a more favorable appearance ; the sanies which commonly flows, becomes white, consistent, and laudable ; the flesh assumes a lively color ; but these flattering appearances do not continue ; the ulcer soon returns to its former state, and passes through the usual changes with unabated violence."‡

In reference to the effects of carbonic acid upon raw surfaces and wounds, Dr. Ingenhouz mentioned to Beddoes the following experiment :—"Blister your finger, so as to lay bare the naked and sensible skin. The contact of air will produce pain ; put your finger into vital air (oxygen), and this will produce more pain ; introduce it into fixed or azotic air (carbonic acid or nitrogen), and the pain will diminish or cease." In relation to this statement, Dr. Beddoes informs us that he made the following experiments on three differ-

* Dr. Ewart's History of two cases of Cancer treated by Carbonic Acid. London, 1795, p. 48. On the Medicinal Effects of Factitious Air, part iv. By T. Beddoes, M.D., and James Watts, Engineer. Table of Cases, p. 4.

† See Part iii. of the Essay of Beddoes and Watts, p. 118 ; and Ingenhouz's *Miscellanea*, &c., 1795.

‡ Fourcroy's *Elements of Chemistry and Natural History*, Prof. John Thompson's translation, 5th edition, vol. i. p. 395.

ent persons :—First, The raised epidermis of a blistered finger, after all action from the cantharides had ceased, was cut away in carbonic acid gas. No pain was felt. Secondly, A second blister being opened in common air, smarting pain came on. In a bladder of fixed air, this pain soon went off. Thirdly, After opening a third blister, the finger was instantly plunged into oxygene. It felt as when salt is sprinkled on a cut. In carbonic acid gas, the pain in two minutes quite subsided ; but returned when the denuded skin was again exposed to the atmosphere.*

If there be no source of fallacy in these experiments, they certainly point to one kind of important improvement in the treatment of some painful burns, wounds, &c. For they appear to me to suggest the possibility of the suffering which is attendant on such injuries being controlled and cancelled by keeping the pained parts in contact with carbonic acid, or with some other gas or fluid, capable of acting as a local anæsthetic. If the reports of Ewart, Beddoes, and Fourcroy are correct, we ought also, indeed, to find carbonic acid an excellent application even as far as the mere healing and cicatrization of the broken surfaces are concerned.

* On Medicinal Uses of Factitious Airs, pp. 43-45. *Note on painless extraction of teeth.*—I have previously stated, that it was reported that M. Pernot, a dentist at Limoges, in France, had a secret of extracting teeth with little or no pain, in consequence of previously applying some obtunding agent to the gums. More recently, I have been informed by several persons, some of them medical men who had practised at Hong-Kong, &c., that the extract'on of teeth is sometimes performed in China without pain. The alleged secret of thus annulling the pain incident on tooth extraction seems to be possessed by a particular guild of dentists in the Celestial Empire. They are said to apply locally the anodyne, and to be able to pull out the tooth with very little force or pain some hours subsequently. The substance employed is generally reputed to be extracted from the head of a fish ; and, if so, may probably be some form of phosphoric acid. Is it possible that any form of this acid can soften the tooth, or its bony socket, as acids generally soften bone, permitting its removal without pain, while the surrounding soft textures remain uninjured ?

Microscopic Appearances of Evacuations in Yellow Fever, observed by Dr. Blair.

The following letters from *Dr. Blair* to *Dr. John Davy* contain observations of so much importance, bearing upon the pathology of yellow fever, that we have much pleasure in making room for them. We may add, relative to the morbid specimens referred to in *Dr. Blair's* first letter, that *Dr. Davy* finds their appearance under the microscope to correspond with the description, and that the latter gentleman entertains no doubt of their being portions of vessels.

GEORGE TOWN, Demerara, March 8th, 1856.

MY DEAR SIR,—I beg leave to enclose for your examination a small fragment of material which was expectorated by a seaman, Thomas Bailly, suffering from yellow fever in the Seaman's Hospital, on the 29th ult. The expectoration at the time of observation was of considerable quantity, amounting probably to an ounce. Some of it had a clear glairy appearance, and some was of rather an opaque white, and of a tenacious consistence. Mixed with this expectoration were several red spots, apparently minute blood-clots. On microscopic examination, the pale portion was found to consist chiefly of epithelium, but no cilia were observed on the cells, which were in general very perfect. Several fragments of broken capillary vessels were found mixed with it. When the red spots were subjected to examination, they were found to consist of bundles of capillary fragments, tinted of a bright pink or crimson, and without blood-corpuscles being present. Under the one-fourth and one-eighth inch object-glass of Ross, several of these capillaries were found to be colorless. I enclose a small portion of this material in tinfoil; and, lest decomposition should injure the specimen before it arrives at its destination, I have mounted a minute portion in Canada balsam, which is also sent. Although it is only a week put up in the balsam, I find it has lost much of its brightness of color already. The fimbriated ends are also injured. It would likely have done better in a glass cell, preserved in Goadby's solution, but I feared that the thin glass of the cell would have been fractured in passing through the post-office. I hope, however, that between the two samples sent, sufficient may reach you to enable you to form a correct idea of its structure. On the 4th of last month, in the case of a seaman named Morrison (fatal), I for the first time observed the undoubted presence of broken capillary vessels in the excretions of

yellow fever. In his case, also, it was first noticed in the expectoration. On all former occasions, epistaxis or bloody expectoration was looked on carelessly, as merely a manifestation of the hæmorrhagic tendency, and nothing was expected to be seen but blood-corpuscles under the microscope. These symptoms were therefore almost unheeded hitherto. On this occasion, however, some turn of thought suggested more particular attention to the subject, and the examination of Morrison's bloody sputa led to important results. I have since found the existence of broken capillary vessels one of the commonest phenomena of the disease. They are to be found sometimes in great abundance in the urine, in the alvine evacuations, in the white vomit, in the flaky sediment of the black vomit, in the bloody exudations and hæmorrhages from the mouth, and even on the blistered surfaces. In the flakes of black vomit, it is sometimes necessary to dissolve off the albuminous matter by a drop or two of liquor potassæ before they come fully into view. I had often seen them formerly in the urine and black vomit, and other fluids eliminated from the subjects of yellow fever; but as in most cases they are colorless and empty when so found, I was wont to set them down as extraneous bodies, and suspected them to be fibres derived from the linnen sheets and towels of the establishment. With this preconceived idea, they were of course overlooked and unrecorded. On turning up some old mounted specimens of "caddy stool" of the epidemic of 1851, I find these vessels still existing in them. The fragments of capillaries are found generally in single cylinders; I have seen, however, a few branched and bifurcated. Their tendency to break off seems to be at the *bendings*. The fracture is occasionally clean, but generally the broken end is split into filaments. A separation of filaments seems to be the mode in which the fracture occurs; and in many fragments, the length of which will occupy three or four times the field of vision of a half-inch object-glass, several partial fractures may be observed in which the tube at such points is split all around longitudinally, and a perfect sub-division is about to occur. At such points on the outer angle, and at the open ends of the capillary fragments, the *débris* of blood corpuscles is to be seen, and these sometimes form a little dossil which is seen connected with the tube of the vessel by fibrillæ. In the urine I have seen some of the capillary fragments enveloped in the tube-cast material, but encrusted evidently with flat instead of spheroidal epithelium. I cannot observe in the specimens which I have now sent, any epithelial lining within the capillaries; and yet their calibre, I think,

is such as would lead us to expect its presence, were they not diseased. In some of the specimens which I have kept of the same expectoration, epithelial is visible alongside of the broken capillary vessels, as if it, as well as the blood, had escaped from their cavities. Finding that ecchymosis of the conjunctiva, epistaxis, and some other hæmorrhagic appearances, are common in yellow fever long before the blood has apparently lost any of its fibrine; and finding that even when black vomit is established and the tongue is smeared with blood, the corpuscles are normal in appearance, I cannot but look on the textural lesion of the capillaries as a primary effect of the yellow fever poison, and as the *cause* of the congestions, ecchymoses, oozings, and hæmorrhages, and all their consecutive mischief. The phenomena of the present minor epidemic also corroborate the view that the poison attaches itself to the mucous membranes in the first instance. Its early effects seem to be local. The system is thereby inoculated, and the poison spreads to all the analogous tissues of the body. A general impregnation of the *circulation* in the first instance would be scarcely compatible with the fact of the slow, steady march of the pathogenic influence through the various organs of the body. I enclose the case of Thomas Bailly, as reported in our hospital case book. It will be seen how his attack commenced like a "common cold"—began in the bronchi, and how it gradually extended to the conjunctiva, mucous membrane of the mouth and fauces, to the liver and kidneys, and its final resolution. I may mention, in "reporting progress," that I have detected the glandular cells of the liver to be a common and very large constituent of black-vomit. Their shape and size and tint, and the presence of minute oil-globules beside the nucleus in the epithelium, leave no doubt in my mind as to their identity. In the flakes of the black-vomit sediment, also, there is not much difficulty, with the addition of liquor potassæ, in distinguishing the bile-flakes from the blood-flakes.

I remain, my dear Sir, ever faithfully yours,

D. BLAIR.

DR. JOHN DAVY, F.R.S., &c., &c.

GEORGE TOWN, Demerara, April 24th, 1856.

On the 11th, while visiting early in the morning a patient of the Seaman's Hospital, named Nolin, I saw in his basin a few ounces of black vomit, with clear, slightly brown-tinted, supernatant fluid, and well-defined sooty sediment in little flakes. This vomit seemed formed from intermixture of food, drink, medicine, blood, saliva or

expectoration. Seeming to be as pure as could be obtained, I carried home with me for experiment a small phial of it. My first experiment was to evaporate a large drop of the sediment and serum on glass slips, in the sunshine. I mounted both in Canada balsam. That of the former has given me a fine specimen, in which, along with numerous loose oil-globules, many of the glandular cells of the liver (in which the black vomit abounded) are well preserved. I noticed, when spreading out the sediment with needles, in order to render it sufficiently translucent for mounting, that it was somewhat flossy in texture, and showed a reluctance to be subdivided. After mounting these, I dropped a little of the sediment on a number of glass slips, for the purpose of applying reagents. In dropping it from a wide-mouthed pipette, I found the sediment had a tendency to fall in little separate masses or blebs. They dried in the shade in a few hours. After drying, I found each specimen of sediment encircled with a pellucid ring of dry serum, which had oozed out of the sediment. This, under the microscope, showed only an amorphous glittering. But when I applied a drop of acetic acid to the centre, and it flowed over the margin, the whole pellucid ring started into view, filled with colorless, slightly opaque tubules, in the most beautiful loops and reticulations. I need not say with what surprise and delight I looked on this unexpected vision. The tubules were in two sets—the inner in regular network—their diameter filled one space of Ross's micrometer eye-piece, under the half-inch glass. The external set of tubules were at least twice the diameter of that of the others, and their arrangement was in large open festoons. Some of them seemed terminal and acuminate at one end, and appear to lie in a curtain of basement membrane. Within both sets there appeared numerous minute granules. When the acetic acid was stirred about in the sediment (the colored central portion), numerous detached hepatic cells were brought well into view, and by tearing up this part of the sediment with needles, I observed that several of the large tubercles permeated the mass. As usual, several common capillary fragments were present. After a few minutes, the tubules seemed to dissolve, and the acid evaporated, but on a re-application of the acid they re-appeared, although not at all with the former clear definition. To another specimen of the dried sediment I applied a drop of water, and found that by it I could detect the tubules, but they were faintly marked, and might have escaped observation had they not been looked for. These vessels are evidently quite different from the capillaries I have

hitherto noticed in the excretions of yellow fever patients ; while the latter are generally straight and rigid, or broken off at sharp angles, the others are beautifully wavy, and sometimes duplicate, and symmetrical. Alcohol and ether acted peculiarly on these tubercles. A movement was instantly caused among them: The meshes swelled up and unravelled themselves, and showed at the angles of the network that the gyrations preserved the same calibre as the other parts. The ether acted in a very fugitive manner, the field soon being obscured by condensed vapor and the haziness from the diffused fat of the liver cells. The dissolved fat of the alcohol did not offer much obstruction to the light. *Liquor potassæ* brought out the tubules faintly and transiently, probably from dissolving them rapidly, but it at the same time extricated several fine large films of basement membrane from the colored sediment. After the evaporation of the acetic acid and ether, the tubules became again invisible. But after the evaporation of the alcohol they were still to be observed, but in an abnormal condition, and much less distinct than when wet with that reagent. The specimens acted on by liquor potassæ and nitric acid remained in a moist condition for several days, but without a trace of tubule after that time. In the first instance, the nitric acid acted fully as well as any of the reagents, and brought out the festoons still more distinctly. But it, moreover, enabled me to trace some of the tubules into the centre of the specimen, and showed them to be a continuation of vessels contained in the dark material which had floated out while the specimen was drying. But still more important, this reagent enabled me to detect *within* them distinctly liver cells, with their minute oil globules. I think there can be little doubt that these tubules are the radical secreting ducts of the liver disengaged from their attachments (or sloughed off) by that destruction of capillary tissue which I am now satisfied is the essential anatomical lesion in yellow fever. May not these observations throw some light on what I believe is still an undecided point in anatomy—viz.: the exact manner in which the bile radicles originate in the hepatic lobules? To me, what I have seen seems a demonstration of the induction of Kiernan on this point. It is true that only granules were visible in the sides of those tubules which had been floated out in the serosity ; but may not these have been embryonic cells? or may they not have been the markings of the site of detached cells—the desquamatory process being common to the epithelial surfaces in yellow fever?

Nolin died after four days' illness. He was unusually yellow for

that space of time. After death, I found (rather an unusual occurrence in yellow fever) the gall-bladder nearly empty, and what was in it only a little pale, pea-green mucus.

I believe I now understand the source and relations of that alvine evacuation in yellow fever, which, in the last epidemic, has been named the "*caddy stool*." It is generally liquid, like dirty water, with a gray, gritty sediment. This sediment under the microscope shows an abundance of crystalline material, chiefly triple phosphates or uric acid, or both; also, although invisible to the naked eye, numerous oblong plates, of a bright yellow color, which I have latterly called *bile crystals*. But the color of this stool is derived from innumerable little amorphous masses, granular in surface, and of a jet black color. This last material, I believe, is *carbon*. I have detected this black material and the bile crystals in several thin sections of the liver, in those who have died of yellow fever in the present epidemic; and I therefore infer that this peculiar stool is derived from the liver. I have also noticed that this stool seems most common when the respiratory function is embarrassed—in the pulmonary form of yellow fever. On the 5th instant, a Portuguese boy, named V. de Cambra, died with black vomit, well marked, in the Colonial Hospital. This was an exceedingly interesting case, from many circumstances. He suffered so much in his respiration, that his lips were markedly livid. His dyspnoea and restlessness were so great, that no careful auscultation could be made. His blistered surfaces bled so profusely, that the discharge might properly be called *hamorrhage from the skin*. Two hours before his death, I examined this blood, and found the corpuscles normal; and I washed a small clot which I took up with forceps from his blistered surface, and preserved it in Canada balsam as a proof of the integrity of the fibrine. This boy's liver and spleen are full of what seems to be identical with the carbonaceous particles of the caddy stool.

Summary of Dr. Blair's Views on Yellow Fever.—Since receiving the previous letters of Dr. Blair, we have been favored with a communication from him, containing the following remarks, which will doubtless obtain that consideration from our readers which is due to any opinion expressed by so careful an observer:—

GEORGE TOWN, Demerara, May 25th, 1856.

The proximate cause of the disease is an aërial poison which enters the system through the mucous membranes, on which it impinges, and to which it becomes attached. In some extreme cases,

all the mucous linings of the eyes, nares, alvine passages, and bronchi, are poisoned at once ; but more commonly, the first application of the poison is only partial. The primary and specific action of the poison is on the capillary vessels, and this action spreads and extends itself until the large viscera and bladder become affected in varying degrees. The mode of action of this poison on the capillaries is first as an irritant, and it ends by inducing a physical impairment of tissue. The consecutive lesions are, desquamation of epithelium, exfoliation of basement membrane, sloughing of the minute capillaries, and deep erosions. The symptoms are first those of an irritant poison, and afterwards are made up of the composite results of hæmorrhage and the circulation of blood, which has been contaminated by impaired functions of the excreting viscera.—*British and Foreign Med. Chirurg. Review.*

Discussion on Bronzed Skin, in the Academy of Medicine of Paris, at its session of the 26th of August.

M. Bouillaud.—It appears to me that M. Trousseau has given too much importance to the recent investigations of M. Brown-Séquard, concerning the supra-renal capsules. The facts reported by that physiologist seem to me so marvellous, that I should like to see them confirmed by new experiments, made under the eyes and with the participation of a certain number of savants. Is it not, in fact, extraordinary that certain organs, whose functions have remained concealed for so long a time, and without whose intervention the mechanism of life has been very well explained, suddenly acquire a physiological rôle so important that they are represented as being the seat of the principal phenomena of innervation—as presiding over the accomplishment of acts the most essential to the economy,—as, in fact, usurping the power hitherto attributed to the nervous centres ; so that, by their destruction, life itself is terminated. Really, such assertions appear to me so strange that I still fear M. Brown-Séquard has pursued entertaining rather than scientific physiology.

As to the cases of *bronzed skin*, they appear to me curious rather than fruitful in results ; and has not M. Trousseau attributed an exaggerated influence to the alteration of the supra-renal capsules, by giving them credit for disturbances as serious as those he has pointed out in the circulation, in innervation and in nutrition ? I have just seen the supra-renal capsules of his patient. Their tissue

is assuredly much altered, but M. Trousseau knows full well that in all cachexia we find serious lesions in the majority of the organs, without it being possible to decide with certainty which of these alterations has produced the general morbid condition.

Besides, what may shake a little the too absolute conclusions which M. Trousseau draws from his case, is that I have just heard the Physician of the Ministry of the Interior, who had first treated the patient, say that this man, of a sordid avarice, carried sometimes this vice so far as to deprive himself of the necessities of life, and starve himself almost to death. Now everybody knows that insufficient food is often a powerful cause of cachexia.

M. Trousseau.—Assuredly M. Bouillaud has been too severe towards M. Brown-Séquard. All who are acquainted with this learned physiologist know with what care, what skill, and what minute precautions he performs all his experiments. The facts he has announced he has observed in sixty animals, from which he removed one or both of the supra-renal capsules. M. Bouillaud accuses me wrongfully, methinks, of attaching too great an importance to the alterations of the supra-renal capsules in the production of the cachexia which accompanies the *bronzed disease*. I did not say that the lesions of the supra-renal capsules must, necessarily, induce Addison's disease, with its train of cacochemical symptoms; undoubtedly not. I very well know that we can meet with altered supra-renal capsules in many chronic diseases, and in every possible cachexia. But what I affirm, with Mr. Addison, is, that the affection called *bronzed skin* is always accompanied with very grave lesions of the supra-renal capsules, whilst these alterations are not necessarily found in the other forms of cacochemia. I do not pretend, either, that it is this lesion of the capsules which directly causes death, but I believe it capable of inducing consecutively a pathological modification of the blood incompatible with life.

If I have said that my patient lived in excellent hygienic conditions, it was because I was completely ignorant of what has just been told of his sordid avarice, to M. Bouillaud, by the Physician of the Ministry of the Interior. I know that inanition, resulting from insufficient food, may so impoverish the blood as to induce a deep cachexia; but nothing proves that it can produce the *bronzed skin*. For this disease to make its appearance, we must then have a special condition, a specific cause; and science is indebted to Mr. Addison for having discovered that here this special condition is a serious alteration in the texture of the supra-renal capsules. This is a capi-

tal point in the diagnosis as well as in the prognosis of cachexia ; for Mr. Addison in specializing this cacochemical condition, has established that its termination is constantly fatal. Now, you know how important it is to us physicians, to have fixed ideas of the chances of curability, more or less great, of a disease.

M. Bouillaud.—I cannot help reproaching the experiments of M. Brown-Séquard, for wandering from the paths of positive physiology. What is then the function, in the economy, of the supra-renal capsules? This is what M. Brown-Séquard's researches in no wise establish. Since the functions of these organs remain yet unknown, on what then does he rely to attribute to their mutilation, or to their extirpation, such formidable functional disorders, which constantly end in death?

M. Trousseau.—Could not the reasoning of M. Bouillaud be applied to the functions so obscure of the spleen, and perhaps also to those of the pancreas, since M. Colin has pretended, contrarily to M. Bernard, that this organ had not for its special mission, to emulsion the fats. Such a system would lead to the most deplorable uncertainty and skepticism in physiology.

M. Gibert.—Is it not wonderful that a single physician should have had the good fortune of observing 60 cases of *bronzed disease of the skin*, when this affection had until lately attracted the attention of no other practitioner? My astonishment is so much the greater that these observations came to us from abroad. I shall undoubtedly be less astonished when similar observations have been made in France a sufficient number of times to render it legitimate to place the bronzed skin, with alteration of the supra-renal capsules, amongst special cachexia.

The dark pathological coloration of the skin is very rare. We may, I believe, distinguish two varieties of it. One is transient and lasts about a month. It seems to me to be due to an imbibition of the subcutaneous cellular tissue and dermoid rete by the blood, which rapidly alters in the parts exposed, like the face and hands, to the contact of air. It was on an affection of this kind that I formerly had occasion to read an essay before the Academy.

The other variety is that to which the case mentioned by M. Trousseau, and that observed in the wards of M. Cazenave, should be referred. I might perhaps add the curious case of a woman whose lips and a great part of the face became black after a violent and painful emotion. I lost sight of that woman too soon to know what was the consequence of that accident.

M. Trousseau.—I appreciate the sentiment of nationality which induces M. Gibert to place so great a confidence in the labors of our compatriots ; but we would run the risk of becoming unjust if we did not also acknowledge the service rendered to science by foreign physicians. Mr. Addison is one of the most deservedly esteemed physicians of England, and his incontestable talent as an observer, joined to a great scientific probity, is a sufficient guarantee of the authenticity of the facts he advances. Mr. Addison is the compatriot and the friend of Mr. Bright. These two learned physicians have rendered important services to pathology. One by discovering a form of dropsy invariably connected with a serious and incurable alteration of the kidney ; the other by pointing out a morbid coloration of the skin, which is always accompanied by cachexia and a profound lesion of the supra-renal capsules. Such physicians are worthy of all our respect and gratitude ; they have well deserved of science, and of humanity.—*Gazette Hebdomadaire.*

Regions of Disease corresponding with Seasons and Zones of Climate.

By ALEX. KEITH JOHNSON, F.R.S.

The surface of the globe may be divided into belts or zones, distinguished by great leading characteristics ; as, I, the torrid zone, or belt of greatest annual mean temperature, characterized by the class of diseases which includes *dysentery, yellow fever, diarrhœa, malarial fevers*, and affections of the *liver* ; II, the sub-torrid and temperate zone, of which *inflammatory diseases*, represented by *typhoid fevers*, are the characteristic maladies ; and III, the sub-temperate, sub-arctic, and arctic zone, characterized by *catarrh* and *colds*.

I. The immediate dependence of the first class of diseases on heat and moisture, as important exciting causes, is shown by the circumstance that its maximum intensity corresponds with the countries situated under the line of greatest annual mean temperature, the assumed equator of heat of the globe (82° Fahr.) ; which line also intersects the region of greatest aqueous deposition. From this line, to about latitude 23° North, 53 per cent. of the deaths are attributable to this class of diseases ; while in latitude 35° North, marked nearly by the line of 77° Fahr. in July, and on the boundary of the second zone, the amount is only 14 per cent. ; and at the Cape of Good Hope, latitude 35° South, it is only 3 per cent. As far as can be ascertained, the mortality from the entire classes within this

zone amounts to 75 per cent.—the first and second causing 53 and the third 18 per cent. of the whole. The same law of decrease with the lowering of temperature is apparent in the seasons of their occurrence. In a series of dysentery epidemics, narrated by Ozanan, 36 occurred at the end of Summer, 12 in Autumn, and only 1 in Winter. Of 13,900 individuals seized with dysentery in Bengal, 7,000 were attacked in the warm and humid season, 4,500 during the hot and dry season, and 2,400 during the cold season. In Spring these diseases are more inflammatory in their character, and in Autumn more putrid.

The northern limit of this class of diseases is probably the Bermudas, latitude 32° North in the Atlantic; and California, latitude 38° on the Pacific Ocean, in America. In Asia it extends to near Peking, latitude 40° North; and in Europe to the South of Spain. Its southern limits are—in America, Buenos Ayres, latitude 34° South, on the Atlantic, where, however, it is not severe; and Lima, latitude 12° South, on the Pacific. In Asia, the southern limit includes Aracan, Ava, and Ceylon, Borneo, and the other islands of the Asiatic Archipelago, and thence it extends to the northern shores of Australia. In Africa it includes the island of Madagascar. Within these limits the principal centres of these diseases are, in America, the shores of the Gulf of Mexico, the West India Islands, and the northern portions of North America; in Asia—India, China, Borneo, Ceylon; in Africa—the countries around the Gulf of Guinea on the West, Madagascar and Mozambique on the East, Algeria and the shores and islands of the Mediterranean on the North. Little is known of the perpendicular distribution of these diseases, except that in Mexico they are prevalent at an elevation of 7,000 or 8,000 feet; and in southeastern Asia they cease at an elevation of 6,000 or 7,000 feet above the sea.

II. In the inflammatory region, or zone, typhus fever, in its varied forms, of gastric, bilious, enteric, &c., fever, takes the place of the yellow and malarial fevers of the torrid zone; and in consequence of fewer of the population being cut off with these, more fall victims to inflammatory affections, of which consumption is the type. But that this latter form of disease is not peculiar to this region, or rather that it becomes more fatal as we approach the tropics, is proved by the fact that in England consumption is only fatal to 3.8 out of every thousand living, while Boston (U. S.) loses 4.0, Baltimore 4.1, Philadelphia 4.2, New York 4.9, and New Orleans 5.6 out of every thousand living.

In North America and Europe, the southern boundary of this group of diseases coincides generally with the northern boundary of the first class. In South America, it probably includes Patagonia. In Africa, it includes the Cape Colony; and it embraces the South of Australia, Tasmania, and New Zealand. In Asia, it is uncertain how far it extends to the eastward. Its northern limit in America includes part of Nova Scotia and Newfoundland; and in Europe the northern boundary includes the British Islands, Norway, and Sweden, to latitude 60° North, whence it appears to follow a southeastern direction, corresponding nearly with the annual isotherm of 41° , till it gradually declines towards the borders of Asiatic Russia. These, however, are only to be considered as preliminary indications.

III. The boundaries of this group of diseases which is characterized by catarrhs, include the whole of Europe to the North of the preceding class. In America it extends South to Boston and New York, including the district of the Canadian Lakes. Thence it continues northwest nearly on the line of 41° annual temperature. Although very little is known of the diseases of Central Asia, yet when we consider the elevation of the surface, the vegetation and the conditions of climate, we may assume that this class of diseases extends there to about latitude 45° . Iceland is the best-known locality of this zone, and may therefore be taken as its representative. The island is visited by catarrh every year in Spring or in early Summer. It is also visited at short intervals by catarrhal fevers—a true influenza, which usually has a great effect on the mortality. Pallas says that the majority of Icelanders die before the age of fifty, from asthmatic or catarrhal affections of the lungs; and Crantz affirms that catarrh is a very prevalent disease in Greenland. Catarrh is also common in Labrador. At Okhotsk, in Siberia, it is accompanied with difficulty of breathing; and a cough, called “Ho,” is endemic among the Samœids.—*Journal of Public Health, for July.*

Therapeutic Results in the Children's Hospital of Munich, under PROFESSOR HAUNER. Reported in the Journal f. Kinderkrankheiten; 1855. Translated from l'Union Médicale for March, 1856: by M. MORTON DOWLER, M.D., New Orleans.

The distinguished Bavarian Professor has briefly recited his own observations touching the action of medicines by him employed in diseases of children. His judgment is of great value, not only from

his eminent ability, but from the fact that the hospital of which he is at the head, receives annually more than 2,000 sick children ; and during many years he has occupied the post of chief physician.

He sets out by recommending *vaccination* in cases of *nævus maternus* ; and recommends the inoculations to be performed not only all over the surface of the *nævus*, but even on the sound skin on the margin of the part affected.

1. *Chlorate of Potassa*.—Employed for many years with constant success in *stomatitis* and *ulcers of the mouth*, and in more than 70 cases. The results are wonderful ; for in four hours the penetrating, disagreeable odor of the mouth disappears, and the cure is rapid. It is very valuable in diphtheritic affections of the mouth and throat, and in mercurial ulcerations ; but its value is less constant in these cases :—*R. Potas. Chlorat.*, ʒss–3j ; *Aq. Distillat.*, ʒiij–ʒiv ; *Syrup Alb.*, ʒss ; *m. ft. mist. S.* To be used in 24 hours.

2. *Cod Liver Oil*.—Has been given in at least 200 cases of rickets, of every form ; all of which have been cured. The other hygienic and medicinal means, as baths, lotions, etc., have not been the principal curative means ; for, employed without the oil, the cure has not been effected. The oil is given in doses of from three to four dessert spoonfuls a-day. Gastric and diarrhoeal affections, if existing, must be treated before giving the oil. In Summer, and during warm days, it is much less easily supported than in Winter, and in cool weather.

3. *Tincture of Artificial Musk (Musc Ambrée)*.—In laryngeal spasm, uncomplicated. Nothing is said of either dose or formula. Employed with constant success in more than 30 cases.

4. *Arsenic*.—*Fowler's Solution*, in various cutaneous eruptions ; as the different forms of eczema, prurigo, psoriasis guttata, etc. The constitutional origin of these affections, is first sought out, and the treatment governed by the same. Those which resist the ordinary rational and empirical treatment, are amenable to arsenic. *R. Liq. Potas. Arsenical.*, ʒj ; *Aq. Destil.*, ʒss ; *S.* Take five drops, at first twice, and afterwards three times a day. At the expiration of one month, the Fowler may be given pure. Fatty and impure aliments must be avoided, and the patient must be warmly clad. Baths hasten the cure. No serious result has been observed from the medicine, but the existence of diarrhoea, either contra-indicates the use of the agent, or neutralizes the result.

5. *Nitrate of Silver* in the decline of *croup*, rubeolic cough, in-

inflammatory angina, and in *ophthalmia* of the new-born. (*Abortive treatment.*)

6. *Sulphuric Acid*, prepared; *Elixir of Haller*.—This medicine, so readily taken by patients of all ages, has rendered the greatest service in typhoid, and exanthematous fevers; in diseases of the blood and of the vascular system, appertaining to scorbutic affections, especially in the *Spotted Disease of Werlhoff*. It is given with other appropriate remedies, by adding from ʒss. to ʒj. of the medicine, to from ʒjss. to ʒjvss. of the syrup of marsh-mallows, and adding a table-spoonful of this to the common drinks.

7. *Arnica*.—M. Hauner having witnessed the abuse of this remedy at the beginning of his career, completely laid it aside. Nevertheless, of late, he has used it on the recommendation of Dr. Schneider in three cases of *serious exudation*, in children notably scrofulous, but free from any specific dyscrasia. The first two were children brought to the hospital with pleuritic effusions, which had been misunderstood, having been regarded by Dr. S. as purulent. The debility was so great that thoracentesis could not be ventured upon. The ordinary treatment was unavailing. A complete cure was effected by *arnica*. M. Hauner obtained similar results in the city, in case of a woman of twenty years of age. The third child was attacked with an arachnoidian effusion, with well marked symptoms; and which slowly disappeared.

In all these cases perseverance is requisite; for those affections do not rapidly yield. These four cases do not afford sufficient data on which to determine the value of *arnica*; but they afford new exemplifications of its value. Take of flowers of *arnica* ʒss–ʒj, or ʒjss. to make from ʒij to ʒijss. of infusion; to which ʒss of Syrup of Senega is to be added; and one or two dessert-spoonfuls are to be taken every two hours. The woman took ʒss of the flowers.

8. *Chinchona*, *Quinine*.—In intermittent fevers, used both internally and endermically. There exists yet another form of fever, nearly approaching typhoid, characterized by feebleness at the onset; and which calls for the employment of quinine. This is the *stupid typhoid fever* of the ancients; the *remittent fever of children*, without localization, of many authors. The diagnosis of the disease is very difficult. It is wanting in the usual dry and red tongue, the febrile pulse, the abdominal sensibility, especially the pain in the ilio-cæcal region, the distension of the belly, the typhoid stools, etc.; indeed, almost all the signs which characterize typhoid. It is not a cerebral affection; for the history, the primary symptoms, the condition of

the eyes, the absence of vomiting, the state of the abdomen, the position of the patient, the intervals of relief, all show the contrary. This disease is no more nor less than a peculiar species of nervous excitation in excitable children, which is most frequently found during the years of evolution. If unfortunately we have employed antiphlogistics, or purgatives, or if we have refrained from treatment, there results a long continued disease, wasting the patient with hectic fever; or, indeed, the disease may localize itself on the brain or lungs, according to the individual predisposition of the patient; and carry off the children by a secondary affection. Quinine is the true panacea against this fever.

Quinine has the most salutary influence in hectic fever, even when owing to the existence of tubercles. M. Hauner cites cases of six girls, from six to ten years of age, consumptives, situated under unfavorable circumstances, in which the cough, sweats, emaciation, (and pulmonary symptoms?) which had resisted other means, disappeared under the use of quinine. If quinine rarely cures such cases, it often gives relief.

Many of the neuroses, and sporadic affections, are also cured by quinine.

In *anæmia* of children, and *atrophy* from bad diet, etc., without localization or disorganization of an important organ, the extract of chinchona, cold prepared by maceration, renders the greatest service:—R. *Ext. Chinchona*, gr. jvss-vij; *Aq. Flor. Anthemidis*, 3x-3ij; *Syrup Cort. Aurant.*, ʒss; *S.* Two dessert spoonfuls every two or three hours.

9, 10. *Chamomile*, and *White Decoction*.—The first in an especial manner relieves colic brought about by an accumulation of gas in the intestines, and it acts as a carminative. The second is a pure mucilaginous substance, indicated in case of bronchial and pulmonary irritation, from what cause soever it may originate. Chamomile is generally employed in *baths*, containing half a handful, or in *injections*, one to two ounces of the medicine infused in from two to three ounces of water.

11. *Columbo*.—In habitual diarrhoea of children and adults. In children, improper nourishment gives rise to a catarrh of the small intestines, or a dysenteric colitis, and from the same cause there is finally developed a state of laxity, and atony of the intestines, manifesting itself by a diarrhoea which is sometimes serous, at others lienteric, which ends in atrophy. This condition does not yield to either calomel, nitrate of silver, or rhubarb; but is sometimes cured

by the mild, ferruginous preparations, but especially by the prolonged use of columbo.

R. *Rad. Calumbæ*, gr. viij-3j ; *Aq. Destil.*, 3j-3jss. ; *coque et adde Syrup Cort. Aurant.*, 3ss. S. Take two dessert spoonfuls every hour. Or, thus : R. *Ext. Calumb.*, gr. jvss.-gr. vj ; *Aq. Cannel.*, 3j-3jss ; *Syr. Cort. Aurant.*, 3ss. S. To be taken as the preceding mixture.

12. *Iron*.—M. Hauner employs iron but little. The tincture of the malate of iron, is prescribed in cases of *anæmic* conditions, when there is absence of diarrhœa, febrile excitement, and dyspepsia. The syrup of iodide of iron, has proven advantageous in certain cases of scrofula, in cases of extremely feeble children. Thin attenuated children having a predisposition to pulmonary scrofula, do not well support it, the cough and irritability of the lungs being aggravated by its use.

13. *Jalap*.—One of the best purgatives in cases of children. Children affected with scrofula, ophthalmia, chronic cutaneous eruptions, intestinal worms, slow and irregular digestion, etc. ; children of a sluggish habit, large belly, dry skin, slow and indisposed to action, are much more speedily cured when the treatment is begun by an active purgative of jalap and calomel. Neither calomel alone, nor senna, nor aloes, is capable of exciting evacuations as abundant, and as derivative as jalap.

14. *Ipecacuanha*.—As an emetic, its efficacy is well established in many diseases, as *whooping-cough*, *catarrhal fevers*, in cases of very excitable feeble children, predisposed to diarrhœa. In small doses this root renders the greatest service in cases of *bronchial catarrhs*, and Spring and Autumnal catarrhal affections accompanied with great irritability of these organs, with cough, mucous râles in the bronchial tubes, and difficult expectoration, especially when these conditions are complicated with intestinal catarrh.

R. *Rad. Ipecac.*, gr. ij-gr. jv ; *Aq. Bullient.*, 3jss.-3ij ; *Macera et Cola* ; *dein adde Syrup Alb.*, 3ss. S. Take two dessert spoonfuls every two hours.

R. *Rad. Ipecac.*, gr. ij ; *Rad. Rhei*, gr. jv ; *Aq. Bullientis*, 3jss ; *Macera et Cola* ; *adde Syrup Senega*, 3ss. S. Take a dessert spoonful every two hours ; or give in powder, from gr. $\frac{3}{4}$ to gr. jss, with sugar and milk every two hours.

Ipecacuanha is one of the best remedies in *diarrhœas*, frequent with young infants in the hot season. (Summer diarrhœa, dysenteric diarrhœa.) An infusion of 3jss. to 3ij made with gr. viij of *Ipecacu-*

anha, with the addition of ℥ss. of the Syrup of Poppy, given in doses of two dessert spoonfuls every hour.

Creosote.—Extraordinary means are to be employed only in extraordinary cases, in which the diagnosis is not positive, and in which we are compelled to treat for the more prominent symptoms. To this category belong two cases of vomiting, which, resisting every other means applied, yielded to the following potion: R. *Creosoti*, gutt ij; *Aq. Destillat.*, ℥jss. *Syrupi Albi.*, ℥ss. S. Take two dessert spoonfuls every hour.

16. *Aqua Lauro-cerasi*.—The organism of children is subject to revolutions in cases of irritable subjects, so often badly nourished and badly treated, and to subacute and congestive affections, which not unfrequently manifest themselves in the head, chest, and spinal marrow, with symptoms of nervous irritation, simulating to a certain extent, cerebral hyperæmia, pneumonia, carditis, myelitis, of which diseases there are only wanting the local pathognomonic signs. The spasmodic pulse, the extreme irritability, the dry skin, the heat, the general agitation, the violent palpitations of the heart, the fatiguing dry cough, under the influence of the *Aq. Laur. Ceras.*, are subjected to a calmative which is unequalled in efficacy by any other medicine. These conditions are moreover frequently met with. This water is still more efficacious in the spasmodic and convulsive cough of children, and in that of consumptives. R. *Aq. Laur. Cerasi.*, gtt. vj-x-xx; *Syrupi Albi.*, ℥j; S. Take a dessert spoonful every two hours.

17. *Opium, Morphine*.—These agents are not frequently employed by M. Hauner. In the *diarrhæas*, he treats with opium only those which are the most obstinate; and he uses it in dysentery. He administers it in very minute doses, combined with calomel. R. *Pulv. Opii*, gr. $\frac{1}{30}$ – $\frac{1}{15}$; *Calomel.*, gr. $\frac{1}{10}$ – $\frac{1}{5}$; *Sacchari Lactis*, gr. viij; m. ft. *Pulv.* S. A powder such as this every four hours.

Its use as a calmative is more general; as in *colic pains*, in *neuralgias*, in *insomnia* and *nocturnal cough* of consumptives (morphine), the cough of the nervous period of the whooping-cough, in non-irritable and phlegmatic children. As an external application, laudanum enters into the composition of numerous collyrii; is used for the dressing of numerous atonic ulcers, in which it favors the formation of healthy granulations; is used in *spina ventosa*, *caries*, etc.

18. *Lichen Islandicus*.—Employed as a tonic in mucous affection of the lungs.

19. *Walnut Leaves*.—*Feuilles de Noyer*.—Long experience has

proved to M. Hauner that in *scrofulous affections*, cod-liver oil, so generally recommended, is without effect ; that iodine, so very efficacious in certain diseases, the chloruret of barium, antimonials, etc., stand at zero, whilst the walnut leaf, newly dried, shows a decidedly advantageous action. (We do not concur in this condemnation of cod-liver oil ; nor as to the infrequency of the good effects of iodine in these affections.—*French Translator.*) (We have derived excellent results from iodine administered simultaneously with iron.—*Am. Trans.*)

The principal indication for the use of walnut leaves, is in cases of torpid, sluggish, and inactive children, in scrofulous ulcers, otorrhœa, chronic, scrofulous, cutaneous eruptions, in atony and engorgements of the lymphatic system. It need scarcely be remarked that the proper hygienic measures ought to be concurrently adopted.

20. *Rhubarb*.—This root will ever find a place in the treatment of children. In young children with affections of the digestive organs, characterized by a tardy expression of the meconium, by icteric symptoms, by non-febrile dyspepsia, etc. ; in short, conditions known under the names of apepsy, flatulence, acidity, gastricism, caused by feebleness of the digestive organs, the consequence of bad alimentation, are cured readily with one or two dessert spoonfuls, daily of syrup of chickory with rhubarb. But it must not be given in febrile affections, and in diarrhœa, unless they be purely gastric. At a more advanced age, we increase the activity of the syrup of rhubarb, by adding to it the aqueous tincture of this substance. This combination is prescribed in affections of the liver and spleen, and to close the treatment of intermittent fevers, etc. Infusion :—*R. Rhei. Contus.*, gr. ijss—gr. viij ; *Aq. Bullientis*, ℥jss—℥ij ; *macera et cola. Solution of Extract* :—*R. Ext. Rhei*, gr. ijss—viij ; *Aq. Fœniculi*, ℥jss—℥ij ; *m. ft. solutio*—this being one of the best stomachics for children artificially nourished.

21. *Senna*.—With children, rhubarb ordinarily supersedes senna ; nevertheless, cases occur in which the more energetic action of the latter is to be preferred ; and we generally employ it in the form of the Vienna Laxative. Such cases are cerebral inflammations, and congestions in torpid children ; obstinate constipation, having its origin in gastric causes, helminthiasis, the onset of gastric fevers and febrile exanthemata, especially scarlatina and variola, in which it is well to avoid calomel.

22. *Senega*.—In *Croup*, neither at its onset nor at its acme, has it any favorable action ; but it is useful at the period of resolution of

the disease, and in consecutive affections ; it acts well in the laryngitis which follows measles. In the secretive period of *whooping-cough*, in *chronic bronchitis*, with abundant and tenacious accumulation of mucosity, in catarrhal and typhoid pneumonia, and especially in rachitic infants.

The decoction may be prepared by boiling from gr. viij to ʒjv of Senega root, in a sufficient quantity of water, so as to make from ʒjss to ʒij of the decoction, to which may be added ʒss of the syrup of senega, or the medicine may be prescribed in the following form.—*R. Syrup Senega, Syrup Ipecac., Syrup Glycyrrhizæ, aa., ʒss. S. Take two dessert spoonfuls every hour or every two hours.* [This seems to us a large dose for children.—*Ed. Am. M. M.*]

23. *Valerian Root, Carbonate of Magnesia.*—These two agents are much employed ; especially in the form of a compound powder, much used in Germany, but almost unknown with us. It is called the children's powder, the *pulvis puerorum* ; for the preparation of which there are various formulæ. The formula preferred by M. Hauner, is according to the manner of Hufeland, except that the oleo-saccharum of fennel is superseded by the sugar of milk. The following is Hufeland's formula ;—*R. Magnesiz Carbonatis, part. xvj ; Radicis Rhei, part. vj ; Radicis Valerianæ, part. j ; Fœniculi. Oleo-sacchari, part. viij ; m. ft. pulv.* Let there be taken, according to the age, what will lay at two or three times on the point of a penknife, daily. However irregular this compound may seem, it is, nevertheless, very valuable ; and is very frequently employed. The valerian, by its essential oil, its extractive principle, and its peculiar acid, acts as a tonic on the nervous system ; while the magnesia as an antacid, corrects the acidity of the gastric and intestinal secretions : the part which is acted by the rhubarb is well known.

24. *Mercury, principally Calomel.*—The action of mercury is especially resolvent, promoting the secretions ; and hence its frequent employment with infants, in which the diseases of organic life are so numerous. M. Hauner especially prescribes calomel in cases of *cerebral affections*, in *idiopathic meningites*, *hyperæmia* occurring at the period of dentition, in robust children, in *convulsions*, *eclampsia*, caused most frequently at that period, by cerebral irritation. In these cases the calomel is given in free doses, say from gr. ½, to gr. jss.

The reputation which mercury formerly possessed in cases of *hydrocephalic diseases*, has vanished before a more correct diagnosis of such cases. The granular affections of the meninges and their

result, acute hydrocephalus, are neither cured by calomel, sublimate, nor any other means ; and the reported cure in such cases, is founded in error.

Calomel renders important service in all inflammations in which there is a tendency to plastic deposits, and exudations into the internal cavities.

Its favorable action is shown further in *intestinal catarrh* of children, attended with pain, great sensibility, and distention of the belly, with diarrhœa, sometimes abundant, but more frequently moderate. Secondary cerebral symptoms often complicate such cases, sometimes with somnolence and heaviness of the head, at other times with crying and insomnia, attacking especially children badly nourished and at the same time suffering from dentition. Emaciation and leanness do not contra-indicate calomel, though it is important to bear in mind the treatment appropriate to each special case. In affections of the large intestines, characterized by frequent evacuations, with tenesmus and violent, painful efforts, accompanied with cerebral symptoms, often convulsions, even to tetanic cramps, in this true *dysentery*, calomel is the agent specially indicated ; and will alone effect a cure. We give from $\frac{1}{6}$ to $\frac{1}{2}$ a grain for a dose, every four or five hours, alone, or associated with feeble doses of opium, say from $\frac{1}{30}$ to $\frac{1}{15}$ of a grain.

Numerous children have been brought to the hospital suffering from the abuse of the infusion of poppy heads. Insomnia, wasting, dryness of the skin, and trembling, showed themselves, owing to narcosis and hyperæmia of the brain. Calomel in the small doses of from $\frac{1}{6}$ to $\frac{1}{2}$ a grain, continued for a long time and aided by cold lotions to the head, has rendered great service in such cases.

As an anti-syphilitic, M. Hauner employs the soluble mercury of Hahnemann with the greatest success, while every treatment, as with iodine, sarsaparilla, etc., has had absolutely no effect. In persisting in his plan of treatment for sufficient length of time, he has secured the permanence of the cure.

25. *Belladonna*.—It always has shown its value in whooping-cough. Nevertheless the last epidemic appeared to be refractory under its use, which M. Hauner explains on the peculiarity of the epidemic, characterized by prolonged catarrhal prodromena, a short spasmodic stage, and a long continued terminal cough.

26. *Tartar Emetic*.—This salt in a single dose of from gr. $\frac{1}{3}$ to gr. ij, according to the age, has often a wonderful effect in *pneumonia*, especially the catarrhal, in broncho-pneumonia, in croup, etc. In

case of sanguine and robust infants, in marked inflammation, we must employ it after abstraction of blood, and without the latter, in case of feeble and scrofulous children ; but diarrhœa and diseases of the digestive apparatus, contraindicate the use of the antimonial. Though its use is less admissible in pure *gastric affections* ; an accumulation of mucosity in the stomach is one of the complications of catarrhal affections of the respiratory organs and in which it may be admissible.

In doses of from $\frac{1}{8}$ to $\frac{1}{4}$ of a grain, the tartar emetic increases the activity of the secretions and excretions of the skin, lungs, kidneys, intestines, and is indicated in a host of diseases, such as catarrhs, rheumatic, eruptive, and inflammatory fevers, active inflammations, especially of the respiratory apparatus, pulmonary and bronchial catarrhs, and blenorrhagias ; affections of the liver and biliary ducts ; acute rheumatism, erysipelas, etc.

27. *Cold Water*.—The limits of this article, notwithstanding the importance of the subject, will not permit us to give the details in relation to the use of the agent. M. Hauner refers constantly to articles on the subject previously published, and which we are not in possession of. We can only remark that he employs this agent according to the principles of hydrotherapy in many diseases, and with great success ; such as typhoid affections, croup, the dermatoses scrofulous affections, rickets, diseases of the nervous system, etc.

28. *Cold Baths ; Injections*.—These are daily used in a great number of affections, the baths and injections being either simple, medicated, or nutritive ; these latter being composed of froth and the yolks of eggs. In general the indications have nothing special which is not well known ; but M. Hauner employs these means much more frequently than most practitioners, and he extols them excessively.

M. Hauner says nothing of embrocations, sinapisms, and blisters, as he rarely employs them.

Although the preceding article deals in many facts which are already measurably known, we have not hesitated to thus give it at some length. It is a summary of the habitual practice of one of our greatest German specialists, who from his position, at the head of a great infantile hospital, is well able to pronounce on the real value of medicines. With this view we give the article entire.—*N. O. Med. and Surg. Journal*.

EDITORIAL AND MISCELLANEOUS.

Since our last issue, the several Schools of Medicine in this city have commenced their Winter courses, and the usual introductory lectures have been delivered. The evening of Monday, Oct. 13, Prof. Draper opened the session at the University, and initiated the lecture season, by discussing the natural history of quacks. He divided his subject into two parts: first, the *quack*; and second, *his patrons*. "He might select," he said "any of the prevailing medical impostures, and use it as illustrating the remarks to be made. As a more efficient mode of attaining the result he desired, he would call their attention to one of those delusions now dead and gone. He referred to that of the medicated electrical tubes, which were in vogue about a hundred years ago. At that time it was simultaneously announced in Germany and Italy, that if there was inclosed in a glass tube, a drug or medicine of any kind, and the tube was then made to give out electric sparks, by rubbing it with a piece of soft, dry silk, whoever received these sparks in any part of his body would be forthwith affected thereby, in the same manner as if he had swallowed a dose of the same drug. The reputed cures effected by this means were testified to by a great amount of personal evidence. Of this kind of evidence it was to be remarked that from its very nature it was barely possible to controvert it. Time alone could dispose of such questions—time, which had settled the imposture of the medicated tubes, and which would settle in their turn the like impostures of our days. It was only the evidence of the competent and enlightened we could trust; that of the ignorant and interested, who constituted the great bulk of the indorsers of every empiricism, was worthless. It was against that self-sufficiency of judgment—that flippant ignorance of consequences—that the moralist might well protest. The patrons of the quack went on as if health and life might be trifled with at pleasure, until their thoughtlessness interfered with the anxious reflections, the watchings, the deep study, the reluctant advice of the good physician, so that it might be truly said of them, that

'Fools rush in where angels fear to tread.'

The only mode by which quackery could be neutralized was by extending the domain of medical knowledge, and to effect that, reliance must be placed on the young men now entering or preparing to enter the profession. Far from supposing that there were many things in the structure and functions of the body which we

could never comprehend, he believed that there was nothing in it which they would not at last explain, and then, and not till then, would it be a perfect monument of the wisdom and power of the Creator. In the application of the exact science of physiology, he looked for the rise of that great and noble practice of medicine which would lead inevitably to the final extinction of empiricism. Even now, that method was attended with results which must commend it to every thoughtful man, since it had connected itself with those great truths which concern the human family most closely, and was bringing into the field of physical demonstration the existence and immortality of the soul of man, and was furnishing conspicuous illustrations of the attributes of God. The day was coming when the quack in medicine would depart to the same place to which had journeyed the astrologer, the alchemist, and when he would rejoin his comrades in that limbo, large and broad, of which Milton spoke—the paradise of fools.”

On Wednesday evening, Oct. 15, at the New York Medical College, Prof. Barker welcomed the new class to their halls. His subject was one full of interest and encouragement to the medical scholar, who is just entering upon the study of the profession he has chosen for the aim and object of his life. It might be called the biography of a physician's life, for the Professor first sketched the medical student as he appears upon his arrival in our midst, regarding them as a class *sui generis*, and hit off with much aptness and very amusingly, many of their peculiar manners. Then passing from considering them as a class, he addressed them personally upon the step they were about to take, and inquired if they had well considered the purpose for which they came thither. He spoke of the toils, the struggles, the deferred hopes, the gradual dawns of success, and the final crowning glory of a fortunate professional career. He traced the progress of the medical sciences as necessarily correlative with advancing civilization. Commencing with Egypt and passing over the republics of Greece, he glanced at the fact that the earliest nations had cultivated medicine successfully. But now this is all changed. Confidence, based on a general high appreciation of medical knowledge, is not felt by the mass of mankind in the medical profession. Among the progressive portion of mankind, confidence, founded upon a blind reliance upon prescription and authority which led men to accept on trust many opinions without any other foundation, is no longer reposed in anything. Neither in law, government, morals, nor religion, is such authority recognized.

He observed that physicians do not attain that reputation which the same talent and industry would secure for them in other walks of life. John Hunter is less known than Lord Mansfield, Laennec much less so than Davy. Still no confidence is so implicit as that reposed in the physician. Nevertheless, though we cannot, like the preacher, lawyer, or legislator, acquire a reputation co-extensive with theirs, we may secure by a diligent performance of our humbler, but not less useful duties, an interest in the hearts of a smaller circle, which may be more gratifying than the cold applauses of a whole people.

Even rare qualifications of nature and education, except under circumstances uncommonly favorable, enable a man only to make but gradual progress.

Dr. Baillie, of London, remarked that he had never known a physician, who, from any cause, acquired business rapidly in London, who permanently retained it. If it be rapidly acquired, this must be accomplished by means independent of those which give a firm hold on the confidence and affections of patients, for they cannot at once be displayed, nor can they at once have their full operation. Sir Astley Cooper's receipts from his first year's practice, were \$26; the second year, \$130; and so on, until on the ninth year it amounted to \$5,500. Afterwards, his receipts ran up in one year to the enormous amount of \$115,000. Dr. Hope, with a well-known London reputation, made \$1,000 the first two years. The third year, the accidental removal of some families who employed him, reduced his practice to \$750. In eight years, when he retired from business on account of the failure of his health, he was making \$20,000 per annum. Sir Henry Hallford, whose practice was more lucrative than any physician of London ever before enjoyed, or will ever enjoy again in all probability, told him that if he made \$5,000 per annum by the time he was forty, he might feel certain of obtaining the first success that the profession could offer. Dr. Hope's career terminated at forty, and he was then making four times as much as Sir Henry Hallford had led him to expect. An amusing anecdote is told of a wealthy man in London, who visited Edinburgh for professional advice in regard to some disease of the heart. He was then told to consult Dr. Hope, who was the highest authority in these diseases. What!—said he, as much surprised as was Naaman, when told by the prophet that he must wash in the river Jordan for the cure of his leprosy,—the man who has lived next door to me in London, for the last five years. Dr. Cheyne, of Dublin, at 34 years of age, made

only three guineas in the first half of his second year's practice. Nine years subsequently, he was making £5,000 sterling, annually. Dr. Chambers, when 34 years old, and in his fifth year of practice, made £211; seventeen years subsequently, he made £9000, or \$45,000, annually. But such success as this, is attained by very few, and in fact, by none in this country."

The Professor, as an offset for the toils and disheartening scenes through which the physician had to pass, then drew a picture of its pleasures, of its triumphs, and made a comparative statement of the position of the Medical Profession.

"And now, gentlemen," he remarked, "are you satisfied with the picture I have drawn of the medical profession? Are you convinced of the wisdom of your choice in selecting this for your profession? It is not for me to decide as to your fitness and qualifications for this noble calling. You have given one proof of it, in coming to New York to receive your medical education. Here, society of the most refined kind offers its banquets to the mind, with such variety as never to satiate; and new objects of interest and ambition, are constantly exciting attention. Here is the grand theatre of intellectual activity, the field of every species of enterprise and exertion, the metropolis of business, of thought, and of action. As it is the grand centre of everything else, it must become the grand centre of medical teaching. The first intellects in the profession are and must be drawn here. Fifty years hence, New York must be the metropolis of medicine for the world. Now it offers facilities for the study of practical, of clinical medicine, such as can be found nowhere else on this continent. We have material in abundance. Look at the public institutions of the city accessible to students, where disease can be studied in all its varieties. The Emigrants' Hospital, where nearly 16,000 patients were treated during the year 1854. I have not the report for 1855, as I have of the following Hospitals: Bellevue, where nearly 7,000 were treated; the Hospitals of Blackwell's, nearly 3,000; the Nursery Hospital, 2,300; the New York Hospital, about 4,000. Besides these, we have St. Vincent's, the Woman's Hospital, the Ophthalmic Hospital, the Eye Infirmary, and five Dispensaries, thirteen clinics connected with public instruction, besides several private ones. On the whole, not less than 120,000 patients, ill with every disease that flesh is heir to, are accessible to students. There is no disease known to this continent which may not be studied here in all its aspects. There is hardly a surgical injury, the management of which cannot be watched under as able

surgeons as are to be found in any part of the world. I do not hesitate to say that the young man who passes a year in New York, who diligently improves every opportunity for study and observation, acquires an amount of educated experience more than equivalent to ten years of ordinary private practice. Clinical instruction has become systematized, and thus practice is combined with teaching, and a facility in the application of theoretical knowledge to practice, is rapidly obtained. The honorable rivalries subsisting between the three schools, stimulate all, both teachers and pupils, to the most active exertion, and thus all are benefited thereby.

The institution which you, gentlemen, have selected, is young, only a few years growth, healthful in aspect, of a vigorous constitution, and therefore full of hope for the future. On our united efforts will depend whether such hope shall bear abundant fruit or decay. My colleagues will yield to none in an ardent desire to promote your interest, while they advance that noble science to which their lives are devoted. Without denying the merits of other schools, which indeed I am most happy to acknowledge, we may fairly contend that a new school has the advantage of being unhampered by any prejudice, and is free to adopt the very best means of advancing the interests of students. There is also a fund of energy and vigor, always attaching to new undertakings of a sound character, which extends not only to teachers but to students. In a branch of knowledge so rapidly progressive as medicine, the youngest "as the latest seed of time" is in reality the oldest, having the longest experience of the past to fall back upon, the most intense realization of the present, and the fullest property in the future. At the beginning of an ordinary medical year, it has been customary to enlarge upon the duties lying immediately before the student, to indicate the best methods of study, and the facilities afforded him for the acquirement of professional knowledge, and to lay down those rules which should guide him in his social and moral conduct. But these topics have been treated by others so ably and so repeatedly, that I feel it would be presumptuous to hope that I would present anything new or striking upon such points."

At the College of Physicians and Surgeons on Monday evening, Oct. 20, Prof. Gilman performed the duty of greeting the new medical class. He chose for the subject of his address, the relations existing between the legal and the medical professions. Before entering, however, upon the consideration of this subject, he paid a merited tribute to those young men who had perished in the discharge

of their duty, from disease contracted while in attendance at the various hospitals in our city. Their names, fourteen in number, have been engraved upon a tablet which is placed to their memory upon the walls of the lecture room. We have already alluded in a previous number of the MONTHLY to this tablet, and have given the names of these martyrs in the cause of humanity. After this feeling tribute, the lecturer proceeded to the discussion of his subject proper, and spoke of the slight regard doctors had for lawyers, and the equally slight respect lawyers had for medical men. He spoke of the delight of the legal man, in making the medical witness uncomfortable, by showing up any inconsistency he might be guilty of by means of sharp cross-questioning.

This antagonism, the Doctor said, ought not to exist. "Why," said he, "should they not treat each other as scholars and gentlemen, instead of seeking to engender bitter feeling towards each other? His object on this occasion was, he remarked, to endeavor to do away with this prejudice." In searching for the cause of this reciprocity of bad feeling, he thought medical men were themselves, in a great measure, to blame. A wrong idea possessed them as to the duties and responsibilities of the other profession. They generally thought a lawyer should only defend that cause which he deemed just, whereas it is his duty to see that his client has a fair trial, leaving the decision to the Court and Jury.

Another cause of the differences between them arose from cross-examinations. The loud dictatorial manner in which physicians were addressed by lawyers—even the most respectable among them—was highly offensive, and bred a feeling of disrespect. The various means employed by the examining lawyer, to confuse the witness, and thus draw forth some discrepant statement; to throw doubt upon the credibility of his evidence were the shafts of the legal examiner, proper for his use, but disagreeable, annoying, and perplexing to the medical witness.

But the medical man should not get angry on account of these vexations. An insolent manner should be met by a studied politeness, for nothing puzzles and disarms the vulgar man like politeness. His brutality shrinks before it, for he knows not what to do with it or how to meet it.

Because a lawyer attempts, or even succeeds, in making a medical witness contradict himself, it should not enter the mind of the witness that he is, on that account, supposed to be guilty of perjury. Not at all. If a testimony is fortified against the keen attacks of a

strong cross-examination, it is so much the better for the cause it sustains. The lecturer wished "to guard medical witnesses from becoming partisans on the side for which they appeared. They were merely required to testify, without bias, either for one side or the other. The true plan was, for them to cherish entire indifference as to the result of their testimony, being in no way responsible therefor." A great source of error with physicians, which is frequently the cause of the contradictory examinations, is professional pride. They fear to confess their ignorance upon some of the points upon which they are examined. They dread the honest acknowledgment "I do not know." The attempts to hide their want of knowledge, when revealed by the keen and searching criticism of the lawyer, subjected them to ridicule and shame, and gave rise to the bitter feelings and differences already mentioned. "How much better," said the lecturer, "to escape all this by the frank admission 'I do not know.'"

From this general view of the subject the Professor then proceeded "to consider the nature of medico-legal evidence touching insanity. The difficulties of the subject were," he said, "aggravated by the very uncertain state of the law on insanity. The legal profession was eminently conservative. The Law was afraid of progress. Medical Science, on the other hand, was eminently progressive. If you spoke to a lawyer about insanity, he would quote Sir MATTHEW HALE or LORD COKE—men deservedly eminent in their day, which was two hundred years ago. Ask a doctor about it, and he would not quote authorities that were two centuries old. But many lawyers even deny that doctors can know anything about insanity, and the court often sustains them. Lord DENMAN has done so in England, and it had so been held in this State. Whether insanity was a disease of the mind or of the body, was a question which had been argued for years. If it was a disease of the body, then, doubtless, those who made diseases of the body their study were competent to judge of it. And could it be a disease of the mind? Was it possible for the mind, the subtle essence which has neither members nor parts, to be diseased? We must place the essential seat of insanity in the body and not in the mind. It had been objected that we could not detect lesion of the brain in an insane man, but who doubted that neuralgia was a disease of the body, and yet the scalpel cannot detect the lesion of the nerve. The right way, as a medical witness to insanity, is to tell the Court that it is impossible to give any accurate definition of insanity. His (the

speaker's) own definition was, that insanity is a disease of the brain by which freedom of will is impaired. It was best to use, in the first instance, general terms only, as 'he is insane,' and to avoid any precise definition as much as possible. Above all things, avoid the use of technical terms. Technicalities are always in bad taste. They tend to provoke Counsel, Court, and Jury, for men don't like to be addressed in terms they do not understand.

"The law had only one test for insanity, which was that a man could not be insane if he knew at the time of committing the act charged against him that he was doing wrong. Now the utter fallacy of this had been known to the medical faculty for one hundred years—it being well proved that many insane people knew perfectly well that what they were doing was wrong. A medical witness should ignore the fiction of the law in such a case and say, 'I suppose he knows the difference between right and wrong; most insane persons do.' Moral insanity was pertinaciously ignored by the Bench and the Bar, but medical men knew perfectly well that it was the result of disease of the brain. Yet," continued the Professor, "if I state my knowledge to the Court, I am told that the law does not believe in it, because LORD ELDON is against me, and if I do not see the worth of LORD ELDON'S opinion in this particular question, the Court says to me, 'My dear sir, there is LORD COKE,' and if I am not satisfied with COKE, they bring SIR MATTHEW HALE down upon me. Now medical science has established beyond the possibility of doubt, that moral insanity, those blind instincts, which drive a man or a woman to the commission even of fiendish acts, is an entity, and if the law chooses to ignore it, and hang a poor wretch so afflicted, we must be thankful that it is a very rare disease, and that but few of ourselves are likely to be attacked by it."

The brief synopses we have been enabled to give of the introductory lectures as above, present a very inadequate idea of their true literary and scientific character. They were listened to by large audiences of physicians and students, and are the starting points of the Winter's labor for both students and professors.

As far as we have been able to learn, the classes equal, or even exceed in number, at this time those of previous years. The representation made by Dr. Barker in his address of the large number of patients in our public charities, shows the great advantage the student enjoys in New York as regards clinical instruction. Many of the Professors are physicians to the Hospitals and Dispensaries, and this double advantage to students, of both clinical and professorial

instruction, is not met with to such an extent elsewhere in this country. Certainly if the efforts of medical teachers deserve success, those of our schools do, and for the accomplishment of it we would urge upon their consideration, concert of action as regards all those steps which it is for their common interest to take, for they may be assured they will find, in this as in other affairs of life, that in union is strength.

D.

Congress of German Naturalists and Physicians, held at Vienna, from the 16th to the 22d of September, 1856.

As early as 1815, Oken perceiving the advantages which science might gain from an annual congress, judging, too, that Germany, in a higher degree than any other country, stood in need of scientific unity, and encouraged by the results of a reunion which the Swiss *savans* had just held,* Oken proposed in his journal (the *Isis*) to establish in Germany an annual congress, to which the different States of Europe should send representatives. His proposal received at first but little support, and his efforts were obstructed by ill-feeling. It was not until 1822, that he was able to gather together a few friends at Leipsic, and to prepare the by-laws of a society which was in the future to undergo considerable change.

The word *society* is scarcely appropriate; it was rather an interview in a place appointed beforehand of all those in Germany, in Europe, in the whole world, who were devoted to the natural sciences, to medicine—in one word, and as a better rendering of the German expression *Naturforscher*, of all those who interrogate nature and study her laws.

Oken desired to correct the literary manners of the *savans* of his own time; he wished to offer some remedy for the rudeness and harshness by which different scientific productions were marred. He hoped, by furnishing to the writers the means of becoming well acquainted with one another, to facilitate scientific relations, to substitute urbanity and kind feeling, in place of the harsh expressions and rude severity of authors, and, as says the protocol of the first meeting, to improve the character of the *savans* by creating friendly relations. Oken had still other views and other hopes. He designed by means of these reunions to bring together an assembly of

* Gosse (of Geneva) founded, in 1815, a general society of Swiss naturalists. It met in 1816, at Berne, the seat of the library; in 1817 at Zurich; in 1818 at Lausanne, etc., etc.

leading writers, to succeed in uniting in one body the scattered documents of German science, and to give them publicity by means of encyclopedias, dictionaries, etc., enterprises to the success of which many persons are indispensable, and which it is difficult to commence through correspondence with strangers. In a word, by means of the union and affection which he desired to arouse, he hoped to see German scientific unity take the first place in European science.

On the 18th September, 1822, therefore, twenty members founded the society at Leipsic. Oken, Carus, Purkinje, Reichenbach, were its illustrious members. Its laws were prepared by F. Schwägrichen and G. Kunze; and, incomplete as they are, they have remained until the present time, in spite of the attempt which was made at Mayence, in 1842, to change them.

The society, which took the name of "Society of German Naturalists and Physicians," aims, so say its laws, to afford to German *savans* the opportunity of becoming personally acquainted. The titular member must be an author, and must have published something besides an inaugural dissertation. In addition to the titular members, all those who have devoted themselves to the sciences, to natural history, or to medicine, are admitted to a participation in the reunions and the pleasures of the meetings; but the members of this latter class have neither the right to make public speeches nor to vote. The place of meeting is changed every year, and the reputation of the society has insensibly increased ever since its foundation.

Two masters of ceremonies (or managers) have the care of preparing and facilitating the approaching reunion, and busy themselves with the invitations, the preparations, the lodgings, the reception of guests, &c. They open the congress, and they alone have the right to sign the name of the society. The latter possesses neither property nor collection. The taxation of the members taking part in the congress, and the generosity of the different governments afford a sufficient sum to pay all expenses. Collections, museums, galleries, are placed at the disposal of visitors, and, in general, strangers are welcomed with the warmest hospitality.

It is the second time that Vienna has the honor of gathering within its walls the German *savans*. In 1831, as well as in 1855, the cholera caused the congress to be deferred one year. Twenty-four years separate the tenth reunion from the thirty-second, and in place of the four hundred and eighteen naturalists of 1832, the number of visitors rises this year above fifteen hundred.

The congress held at Göttingen, in 1854, delegated to Professors

Hyrthl and Schrötter the flattering duties of managers. To their invitation Germany and the principal countries of Europe have eagerly responded. Russians, Italians, and English, compose the majority. France sends but few delegates. At Fribourg, in 1838, there were sixty-two. In 1856, the number of Frenchmen does not exceed twenty.

This is the congress to which our friend Dr. Glück was accredited by the American Medical Association. We published a short letter from him last month, written from London, *en route* for Vienna. Since then we have received a private letter from him, informing us of his arrival at Vienna, and his welcome reception there. He writes:—"I am very much satisfied to have been present here. The managers received me by saying that they are happy to see that America has remembered the society. I received all possible courtesies in and out of the society, and much attention from Surgeons and Ophthalmologists. On our entrance no baggage was examined. Our passports were sent to the Minister's rooms, where cards were distributed valid for remaining in town, making excursions, &c. Foreigners have always had the preference in receiving admissions to concerts, balls, &c. Everything went on very smoothly. Even the medals which were distributed yesterday were given to us while the Viennese had to wait for theirs."

We expect to be able to present next month a detailed account of this congress, furnished by our correspondent Dr. Glück. The historical account which we give above of the origin and progress of this Association, taken from a French journal, will serve as an introduction to the history of this session.

D.

The Medical World is the title of a new journal which has just been started in Boston, by Dr. J. V. C. Smith, formerly editor of the *Medical Journal* of that city. It has in it all the faults which characterized the older publication during its founder's editorship. Of that manner of conducting a journal which speaks well of everybody, commends everything, dares to offend no one, we expressed our opinion several years since, and have found no occasion to change it. The "World" will succeed, and the editor will make money out of it, that being a happy faculty that he possesses in all that he undertakes.

But is Dr. J. V. C. Smith alone responsible for thus putting out a feeler to draw to himself all sorts of *ismatics*? The members of the Massachusetts Medical Society receive them to their fellowship, sit contentedly by their side, and treat them quite as well, as (we hope not very much better than) they do the honest and intelligent practitioner of medicine who turns away from the golden seductions of quackery. There must be something wrong in the profession of the old Bay State, for where there is a *will* there is always a *way* for a society to rid itself of such associates.